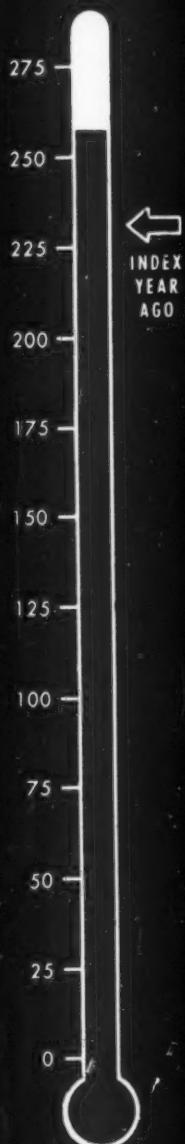


BUSINESS WEEK

Defense Spending

HOW MUCH NOW?

PAGE 29



Airco's John A. Hill: Are hard-boiled presidents passé? (Page 148)

A McGRAW-HILL PUBLICATION

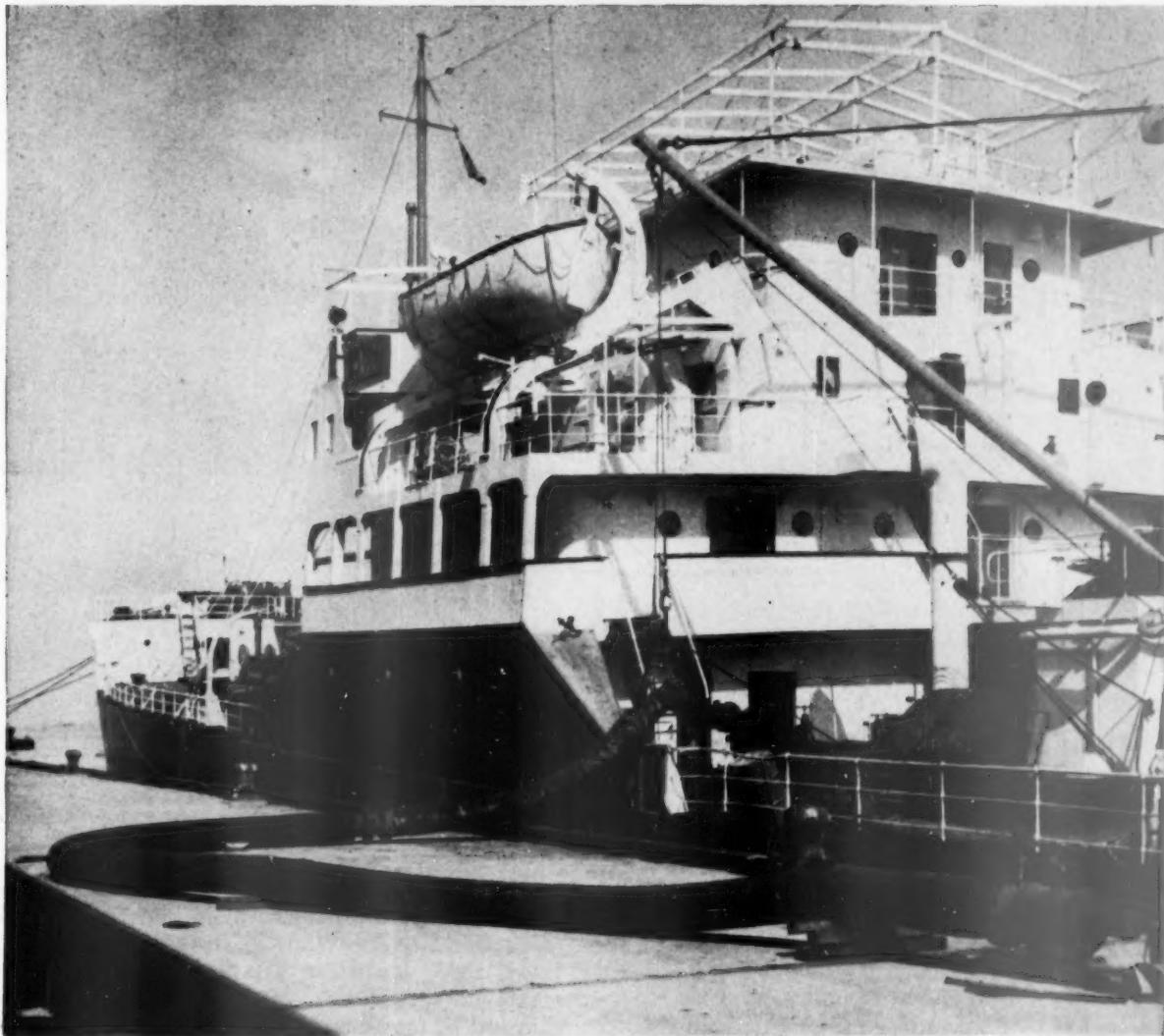
APR. 18, 1953

313 N 1ST ST
UNIVERSITY MICROFILMS
E B POWER
ANN ARBOR MICH
BW

RESEARCH KEEPS

B.F. Goodrich

FIRST IN RUBBER



Rubber rushes molasses in January

A typical example of B. F. Goodrich improvement in rubber

Cows like it and give more milk when molasses is added to their feed. It helps fatten cattle, too, so millions of gallons are needed every year.

Most of this molasses comes into the country in tankers like the one in the picture. It holds 2½ million gallons, and unloading used to be a problem. Pumping through hose was the fastest way, but the hose had to be of enormous size, had to withstand yanking up ship side, hanging by ropes, high pumping pressures, exposure to weather. Ordinary hose wore out too soon.

Then a B. F. Goodrich distributor told the importers about a special type of hose developed by B. F. Goodrich. Ingeniously designed with steel wire in the hose wall, it's strong enough to hold the pressure needed to rush the heavy, thick molasses at high speed, tough enough to stand rough handling on the dock.

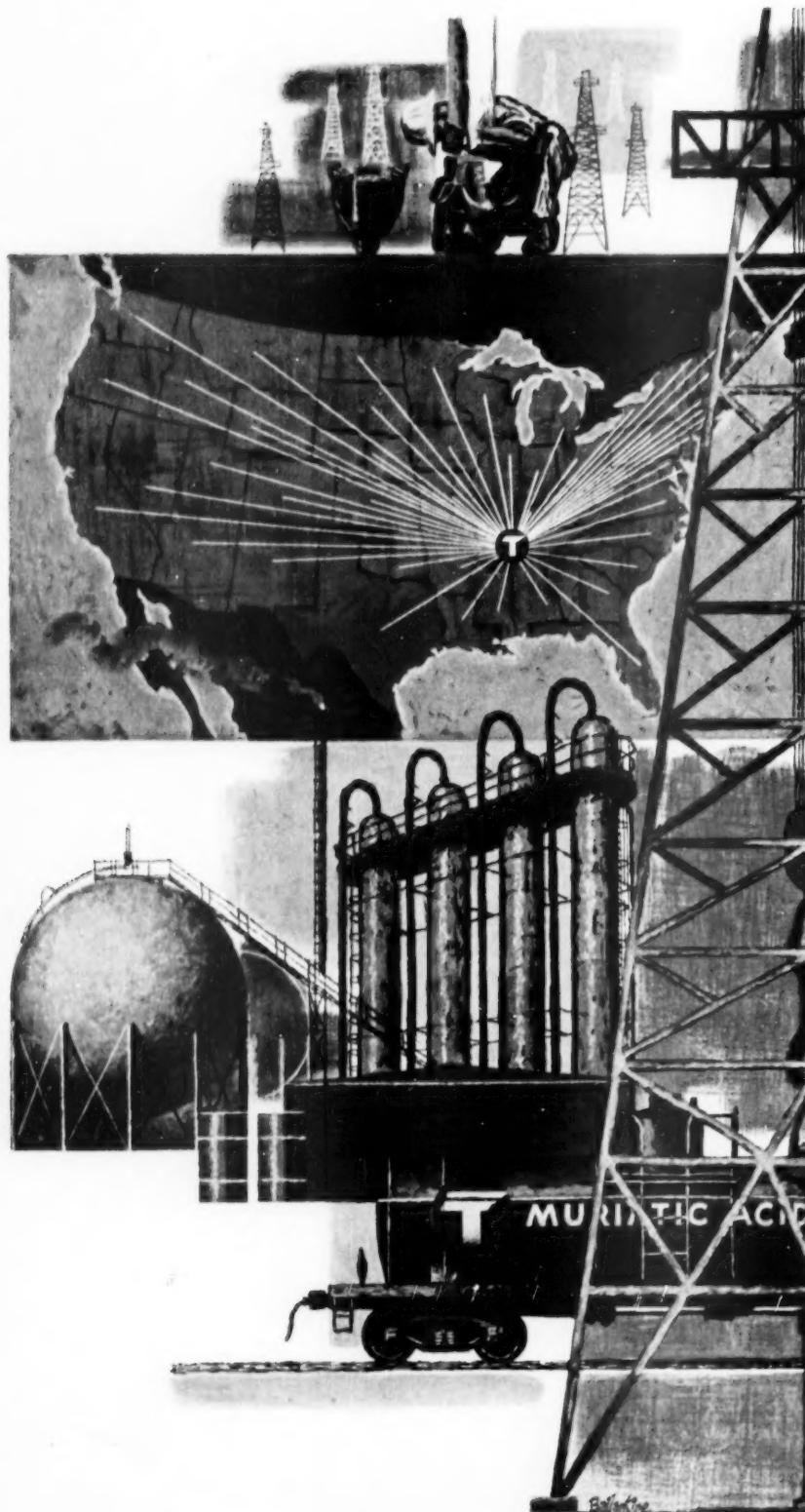
The hose was tried, and has lasted 5 times as long as any other. Now a tanker unloads 26,000 gallons an hour, cost is low. The BFG hose has handled over 300 million gallons of molasses.

This saving from longer life of rub-

ber products is a regular experience of B. F. Goodrich customers. BFG research is constantly at work on hose and belting of every type, on tank linings and every other rubber product industry uses, to make them last longer, serve better, and so reduce costs. Let your local BFG distributor show you how these improvements can save money for you. *The B. F. Goodrich Company, Industrial & General Products Division, Akron, Ohio.*

B.F. Goodrich
RUBBER FOR INDUSTRY

THERE'S A TOUCH OF TENNESSEE IN TEXAS OIL



Oil has brought great wealth to the Lone Star State, to Oklahoma, Pennsylvania, Illinois, Louisiana, California, and other oil producing states. Products from Tennessee are important to the oil industry wherever it is... Tennessee's Muriatic Acid for acidizing the wells, pig iron and ferro alloys for hard drill bits, strong derricks, tank cars and durable pipe.

Many other products from Tennessee are used by Texas industries... Acetic Acid for photographic and bleaching processes... Benzene Hexachloride for pesticides to protect cotton crops... Sodium Benzoate as a preservative. In fact, Tennessee's products are used by key industries in every state in the union. That's why Tennessee is known from Coast to Coast as an industry serving all industry.



TENNESSEE
PRODUCTS & CHEMICAL

Corporation
NASHVILLE, TENNESSEE

*Producers of: FUELS • METALLURGICAL
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BUSINESS WEEK • APR. 18 • NUMBER 1233

(with which are combined *The Annalist* and *the Magazine of Business*) • Published weekly by McGraw-Hill Publishing Company, Inc., James H. McGraw (1860-1948), Founder • Publication Office: 99-129 North Broadway, Albany, N. Y., or 550 Madison Avenue, New York 22, N. Y. • Postmaster: Please send address changes to Business Week, 550 Madison Avenue, New York 22, N. Y. • Executive and Advertising Offices: 330 West 42nd St., New York 36, N. Y. • Curtis W. McGraw, President; Willard Chevalier, Vice-Chairman; George A. Geiger, Vice-President and Treasurer; John J. Cooke, Secretary; Paul Montgomery, Senior Vice-President and Director; Ralph E. Smith, Vice-President and Editorial Director; George Bond, Vice-President and Director of Advertising and Circulation; Address correspondence regarding subscriptions to J. M. Blackburn, Jr., Vice-

President and Director of Circulation, *Business Week*, 99-129 N. Broadway, Albany 1, N. Y., or 550 Madison Avenue, New York 22.

Subscriptions to *Business Week* are solicited only from men in management in business and industry. Postage paid at Albany, N. Y., and at additional post offices. *Classifications* must be indicated on subscription orders.

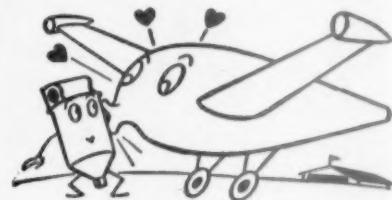
Single copies 25¢. Subscription rates — United States and possessions: \$1.00 a year; \$12.00 for three years. Canada \$7.00 a year; \$14.00 for three years. Other Western Hemisphere countries \$11.00 a year; \$22.00 for three years. Other countries \$25 a year; \$50.00 for three years. • Entered as second class matter, Dec. 4, 1936, at Albany, N. Y., and at additional post offices, and at Mar. 3, 1879. • Printed in U. S. A. Copyright 1953 by McGraw-Hill Publishing Co., Inc. — All rights reserved.

AIR-MAZING FACTS

BY O. SOGLOW



HOUSEFUL MOUTHFUL FOR JET! When a jet takes a deep breath, hold onto your house. A 4,000 horsepower jet engine's intake is so powerful that it could exhaust the air in a 6-room house in 9 seconds.



TOPS WITH JETS! Leading jet plane engineers use Air-Maze liquid filters for fuel and oil lines. Designed to meet high aircraft standards, Air-Maze liquid filters remove dirt and foreign particles from the fuel, keep jets running better, longer.



BUSY ENGINE NEEDS A BREATHING! Internal combustion engine crankcases have to "breathe." Air-Maze breather filters let fresh, clean air in — keep damaging dirt out. Wide range of sizes.

WHETHER YOU BUILD OR USE engines, compressors, air-conditioning and ventilating equipment, or any device using air or liquids — the chances are there is an Air-Maze filter *engineered* to serve you better. Representatives in all principal cities, or write Air-Maze Corporation, Cleveland 28, Ohio.

AIR-MAZE
The Filter Engineers

AIR FILTERS
SILENCERS
SPARK ARRESTERS

LIQUID FILTERS
OIL SEPARATORS
GREASE FILTERS



**This improved 'chute may show you
how to improve your product**

Metals often determine our way of life . . . and in scores of applications, choice of exactly the right metal actually determines *life itself*.

For instance, U. S. Air Force parachutes formerly utilized rubber straps to open the pack for ejection of the 'chute. However, the wide temperature range which 'chutes encounter during use . . . along with the similarly wide range of humidity encountered in storage . . . tend to deteriorate rubber elastic straps.

But under the same conditions most metals will corrode or embrittle.

Not, however, nickel alloyed stainless steel

Today, parachute strap springs are made from chromium-nickel stainless steel wires that develop tensile strengths of from 300,000 to 350,000 p.s.i.

Five times as strong as structural carbon steel, this stainless steel wire retains its strength at

elevated temperatures. And more important in this application . . . even when temperatures fall below zero, chromium-nickel stainless offers maximum safety because it suffers no significant loss of toughness.

Users of stainless steel springs know from experience that there is no deterioration . . . no corrosion . . . no age embrittlement . . . no change in the original mechanical properties of chromium-nickel stainless steel.

An alloy containing nickel may improve the products you make or use. Send us details of your problem for our suggestions.

At the present time, nickel is available for end uses in defense and defense supporting industries. The remainder of the supply is available for some civilian applications and governmental stockpiling.



THE INTERNATIONAL NICKEL COMPANY, INC. 67 Wall Street
New York 5, N.Y.

THERE was something special in the air that spring and even the mules in the mines could feel it. Or so the mule-skinners said, looking back on it later, and who should know better than they?

For this was the lusty first year of the great new century, 1900. Already a man could wind the crank on the little oak telephone box and talk to his neighbor. He could snap a switch and light up a room. A tinkering genius had discovered how to turn the wheels of a carriage with a little gasoline engine. Marconi had sent words winging through space.

Between that spring of 1900 and the present moment lies the most fabulous period of growth the world has ever seen. Out of will and genius and the metals of our mines, came a million miracles—the great skyscrapers, the roaring wheels, the wings in the sky. Out of it has come the greatest wealth—and the most equitable distribution of that wealth—that man has yet achieved.

Metals are one measure of the magnitude of that growth. For we are living in a civilization made possible by metals and dependent on metals. Only fifty years ago the copper needed by the people of this country could be measured in muleloads of ore. Today, we not only have twice as many people as in 1900, but our annual per capita use of copper has trebled. And as the years pass, we shall need even more metals to keep pace with our growth.

Why we will continue to have the metals we need

Years ago the metals industry foresaw and prepared to meet the rising needs of our industrial economy. Since 1940, a three-point program of preparation for future demands has been under way:

To produce more metal from domestic sources, including low grade ores once considered uneconomical to mine.

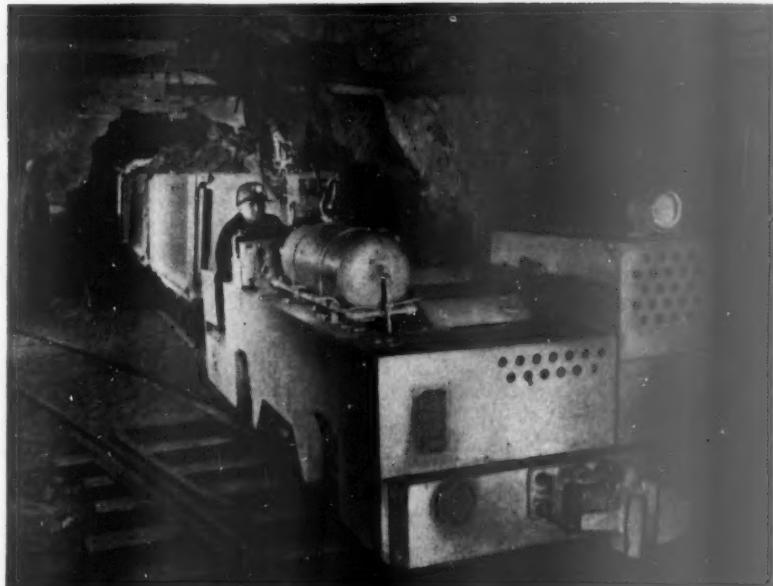
To increase the production of foreign metal available for import.

To make better use of the metals we have.

Seven years ago, Anaconda started on a long range program of preparation for the metals needs of the future. This program is continuing. For the ultimate aim of Anaconda and of the entire metals industry, is to insure that the metals supplies of our country will not only be adequate for all normal needs of the present, but will meet our needs in the decades to come.

58259A

At the beginning of the century, mules that lived most of their working lives underground supplied the haulage power not only in copper mines, but for most other mines in the U. S. Long since replaced by locomotives, mule-power was then considered efficient labor-saving transportation.



MODERN MINE HAULAGE is one of many forward steps that are helping production keep pace with the growing need for metals. This electric locomotive in Anaconda's new Kelley Mine at Butte, Montana hauls a train of twenty 5-ton ore cars. The cars dump their loads automatically, thus speeding work and saving man hours.



MORE COPPER FROM MEXICO will soon come from the improved and enlarged precipitating plant now being completed at Anaconda's property at Cananea, Sonora, Mexico. Shown here are the secondary crusher and concentrator buildings at this open-pit mine, which is 40 miles south of the Border. This important Mexican mineral resource is helping to supply the copper which is essential to our industrial economy.



MAKING FINE PRODUCTS, such as this rod and wire, calls for the finest tools. This Torrington, Conn., Mill of The American Brass Company, an Anaconda fabricating subsidiary, is equipped with the most modern high-speed precision machinery. In one operation, and at speeds up to 140 feet per minute, the machines shown here will finish-draw, cut, straighten and polish rod of diameters up to $\frac{7}{8}$ inch.

ANACONDA is building to provide more metals

PRODUCERS OF: Copper, zinc, lead, silver, gold, platinum, cadmium, vanadium, selenium, manganese ore, ferromanganese and superphosphate.

MANUFACTURERS OF: Electrical wires and cables, copper, brass, bronze and other copper alloys in such forms as sheet, plate, tube, pipe, rod, wire, forgings, stampings, extrusions, flexible metal hose and tubing.

"ANACONDA" IS A REGISTERED TRADEMARK

As our standard of living rises, the need for copper rises with it. The metals industry is meeting that demand, and will continue to meet it, as it did

**when our copper needs could be
measured in mule loads**



History

THE ONLY COMPLETELY ELEVATOR SYSTEM

for Heavy-Traffic Buildings

- Eliminates attendants...even starters
- Adjusts instantly and automatically to any traffic demand...no dial settings necessary
- Saves up to \$7,000 per car a year

Westinghouse Automatic Traffic Pattern Control is the culmination of years of research. Added to Selectomatic, Synchro-Glide and Operatorless features, it is the finest expression of superlative elevator service available today. Its many special features assure elevator service of uncanny efficiency... swift, comfortable, utterly dependable.

Tested and proved in the Michigan Bell Telephone Building in Detroit, this revolutionary new system offers immense cost savings... up to \$7,000 per car a year. It

unerringly responds to all changes in traffic demands during the *entire 24-hour day*... instantly and automatically without attendants or any dial settings by starters. Up-peak, down-peak, off-peak, coffee-time, and after-hours traffic is handled more efficiently than with starters, who, if used, are entirely free for information service.

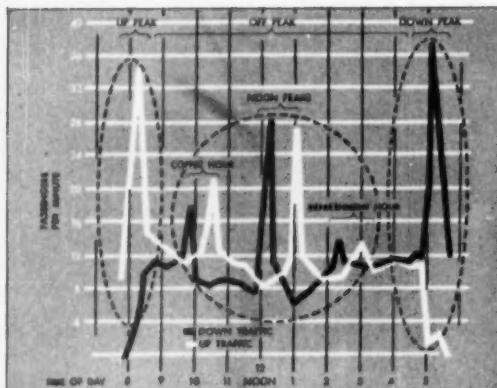
For new building projects or modernization, find out about Westinghouse Automatic Traffic Pattern. For complete details, call our nearest office.

Westinghouse Elevators

PASSENGER AND FREIGHT ELEVATORS • ELECTRIC STAIRWAYS • PROTECTIVE MAINTENANCE AND SERVICE

YOU CAN BE SURE...IF IT'S **Westinghouse**
J-98673

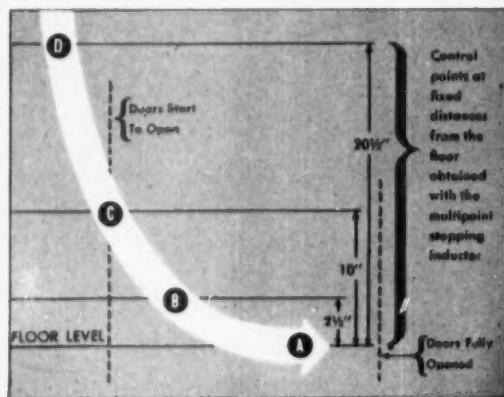
For the first time in Elevator WESTINGHOUSE OFFERS AUTOMATIC



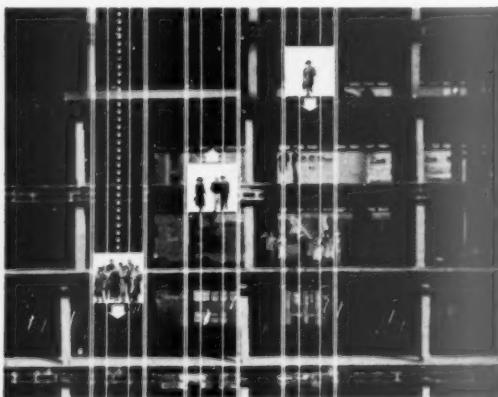
SELECTOMATIC—famous "electrical brain" matches calls, cars and floors . . . makes elevators work as a team. Daily traffic surges met in a typical office building are shown above.



UNIQUE WEIGHING DEVICE SPEEDS PASSENGER SERVICE—an unseen scale weighs passengers, and, when the car is loaded, closes the doors and starts the car . . . this does away with overcrowding, improves service, saves time.



SYNCHRO-GLIDE LANDING CONTROL—brings cars to a bird-like stop . . . fast, smooth, accurate. Power-operated doors are synchronized to open as the car is landing.



AUTOMATIC BY-PASS—given Westinghouse Automatic Traffic Pattern elevators even further efficiency. When a down car reaches capacity loading, it by-passes all down corridor calls which are promptly answered by another car.



LOADS OF P-O-W-E-R WITHIN ARM'S LENGTH

ANOTHER EXAMPLE

of *KELLER Air Tools engineered to industry*

Running down the nuts that hold hinge arms to the counter-balanced hood would be a "rough job" on the automobile assembly line if it were not for this powerful Keller Air Tool.

Here is a pneumatic nut setter with an especially pow-

erful motor, capable of running down machine screw nuts up to $\frac{5}{8}$ ". In this case, it is used with a 90° attachment to deliver power at the angle needed.

Keller Air Tools are lighter in weight, less bulky, and easier to handle. They deliver

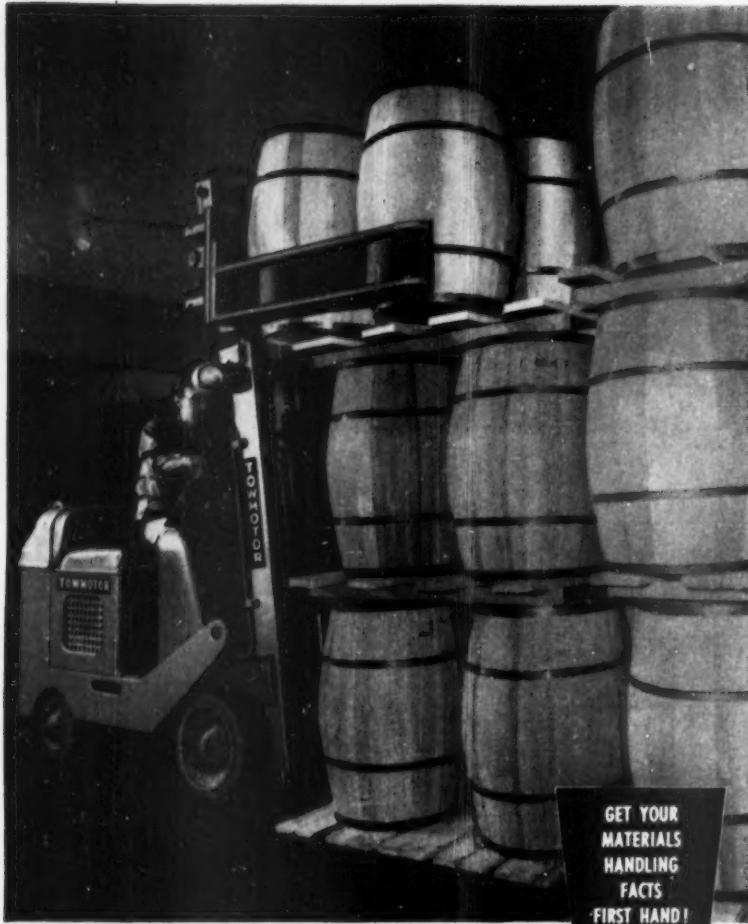
MORE POWER PER POUND, and are less fatiguing for workmen to handle. The result is increased production, lower costs, and better satisfied workers.

When a problem arises which cannot be met by a standard Keller Tool, our design engineers have the knowledge and experience to devise equipment for meeting special requirements.



DRILLS • SCREW DRIVERS • NUT SETTERS • GRINDERS • RIVETERS
AIR MOTORS • AIR HOISTS • AIRFEEDRILLS

KELLER TOOL COMPANY, GRAND HAVEN, MICH.



Triple-tier stacking of a 2,000-pound load of heavy chemicals at Westvaco Chemical Division, Carteret, N. J.

Look ahead to 195?...

Be ready for the unprecedented competition that any tomorrow may bring . . . start now to bring your production costs down to effective "fighting weight." Control the labor component of materials handling costs and you've got the battle of the break-even point as good as won. So, get together with the man who heads up your plant's handling set-up and plan for peak efficiency. You'll find Towmotor's new handling handbook, "Man-Hour Thieves," contains a wealth of cost-cutting suggestions. Write for your copy today, and name of your nearest Towmotor Representative, to: Towmotor Corporation, Div. 204, 1226 E. 152nd St., Cleveland 10, Ohio.

GET YOUR
MATERIALS
HANDLING
FACTS
FIRST HAND!

Be Sure
to see the
Towmotor Exhibit
at the
5th National
Materials Handling
Exposition
starting
May 18, 1953



FORK LIFT TRUCKS and TRACTORS
SINCE 1919
TOWMOTOR ENGINEERED FOR QUALITY PERFORMANCE

READERS REPORT



Those Canny Scots

Dear Sir:

I was very glad to see the article on mobiles on page 46 of your Feb. 28 issue, and just as a matter of interest, I am sending you a photograph of a mobile we used to advertise our furniture at a stand in the British Industries Fair in 1947. The stand was designed by Sir Hugh Casson and the mobile was made by Lynn Chadwick.

I have been a reader of your magazine for a long number of years and find it most interesting and instructive. . . .

N. B. MORRIS

MANAGING DIRECTOR
H. MORRIS & CO., LTD.
GLASGOW, SCOTLAND

• It would seem that the Scots had the idea in 1947, thereby beating us to the mobiles.

Key to Normalcy

Dear Sir:

Re article The Key to Eisenhower's Economics: Sound Money [BW—Mar. 28'53, p80]—It's priceless! Please give us more of the same kind . . . The accompanying sketches are superb!

P. E. MITCHELL

PUBLIC ACCOUNTANT
REEDLEY, CALIF.

Dear Sir:

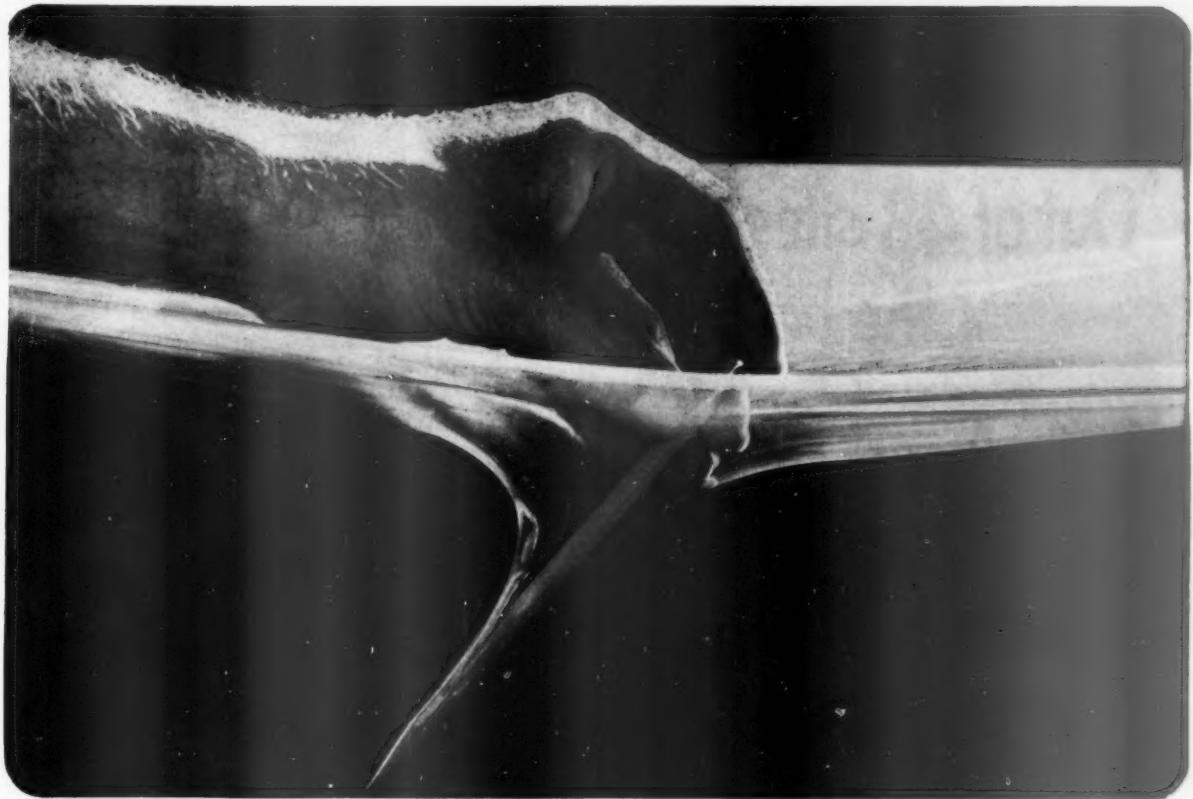
. . . Best article on money I have read including the texts I studied long ago in college days . . .

MURRAY S. HANES

ARCHITECT
SPRINGFIELD, ILL.

Dear Sir:

Your Special Report . . . was a job well done. I think more publicity is needed to the fact that high prices are a symptom of inflation. High wages and high prices are not a cause but a result of inflation. Therefore, you can't control inflation by price controls and wage controls until you control the volume



Best way to stretch a packaging point

If you have a difficult packaging problem because your product is irregular in shape, pointed or sharp-edged, now you can cut your costs—eliminate special cartons or cost-boosting double wraps.

The solution is packaging in PLIOFILM by the Stretchrap machine. This unique packaging machine is specially designed to utilize PLIOFILM's strength, stretchability and puncture-resistance to wrap difficult products rapidly and securely.

Stretchrap takes advantage of PLIOFILM elasticity—by means of a vacuum, draws the PLIOFILM into a pocket—the product is placed into the pocket—twisted and sealed. PLIOFILM then shrinks without puncturing on sharp corners to form a tight, wrinkle-free "skin" about the product, making a neat, strong, durable package.

Now, what can this mean to you?

First, it can mean the protection of PLIOFILM for your product against soilage, spoilage, grease and moisture. Second, you can ship, store, or even place it on a self-service shelf—displayed in a protective package that is naturally transparent.

Third, it can save you money—lots of it. That's because with PLIOFILM and the Stretchrap process, you'll get more square feet of product coverage per pound of packaging material—by a wide margin.

Remember, this highly efficient machine operates only with PLIOFILM. For full details, write or wire the Goodyear Packaging Engineer today.

Goodyear, Pliofilm Department, Akron 16, Ohio.



Good things
are better in

Pliofilm

3-way protection against air, moisture, liquids

Stretchrap—T. M. Stokes and Smith Company, Philadelphia, Pa.

Pliofilm, a rubber hydrochloride—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio



**"So you'll boss duh job wit' your walkie-talkie —
but just how do I get over dis fence?"**

• A good question . . . one that burglars have been trying to answer for many, many years.

Yes—for over 50 years Cyclone Fence has been barring the way to all would-be intruders. But it isn't protection alone that has made Cyclone so popular with plant

management. It's also the way every Cyclone Chain Link Fence stays taut and trim, year after year, without upkeep expense.

Cyclone's special features and different styles of fence are in our free booklet. Send the coupon for a copy of this worth-while booklet.

CYCLONE FENCE DEPT., AMERICAN STEEL & WIRE DIVISION, UNITED STATES STEEL CORPORATION
WAUKEGAN, ILLINOIS • SALES OFFICES COAST-TO-COAST • UNITED STATES STEEL EXPORT COMPANY, NEW YORK

U·S·S CYCLONE FENCE

Cyclone is the trade-mark name of fence made only by Cyclone. Accept no substitute.

FREE BOOKLET ON FENCE

Our informative booklet is filled with photographs, drawings and graphic descriptions of different styles of fence and gates for the protection of property. Whether you're interested in a few feet of fence or miles of it, you'll find this booklet worth your while. Send for your copy. It's free.



CLIP THIS COUPON — SEND IT TO —

Cyclone Fence, Waukegan, Ill., Dept. 443
Please mail me, without charge or obligation, a copy of your booklet.

Name.....

Address.....

City..... Zone..... State.....

UNITED STATES STEEL

(supply) of money by monetary control — We must remember that inflation is possible with a small amount of money in circulation if it is turned over rapidly enough. Moreso, a bigger inflation occurs if the supply of money is larger. A large supply is not necessarily dangerous if caution is exercised.

W. A. SCHRATZ
INSTRUCTOR OF INDUSTRY
THE UNIVERSITY OF PITTSBURGH
SCHOOL OF BUSINESS ADMINISTRATION
PITTSBURGH, PA.

Dear Sir:

. . . very interesting . . . One of the best explanations of this intricate subject that I have ever seen . . .

E. M. McCONNEY
PRESIDENT
BANKERS LIFE CO.
DES MOINES, IOWA

Dear Sir:

. . . has valuable substance in guiding one's thoughts concerning the financial situation of our country and its effect upon the various sections of the country . . .

RALPH G. BABCOCK
OFFICE MANAGER
MUNICIPAL LIGHT DEPT.,
READING, MASS.

Dear Sir:

One of the best Special Reports you have ever printed. It sets out information that the layman cannot secure and it is a liberal education if one would study it . . .

R. C. BURCH
UNITED BRICK & TILE CO.,
KANSAS CITY, MO.

Dear Sir:

. . . I believe this to be one of the finest reports of this type ever published in your good magazine which I thoroughly read each week . . .

H. RAHTJEN
ASSISTANT CASHIER
FIRST WISCONSIN NATIONAL BANK
OF MILWAUKEE
MILWAUKEE, WIS.

Dear Sir:

. . . exceptionally good.

W. K. ALLEN FERGUSON
GENERAL DIRECTOR, PRICING
REYNOLDS METALS CO.
RICHMOND, VA.

Dear Sir:

May I congratulate you on the best article on central banking and the relationship between the Federal Reserve System and the Treasury that I have ever seen. In my class in the develop-

Allison TORQMATIC Drives



The Team that stretches time between overhauls!

Operators of heavy-duty, off-highway trucks soon find in their cost records that Allison TORQMATIC Converters and TORQMATIC Transmissions extend time between overhauls and help cut repair bills amazingly.

Allison TORQMATIC Drives match the engine power to the loads. Maximum engine horsepower can be utilized throughout the entire haul cycle, thus eliminating harmful shocks, luging and stalling.

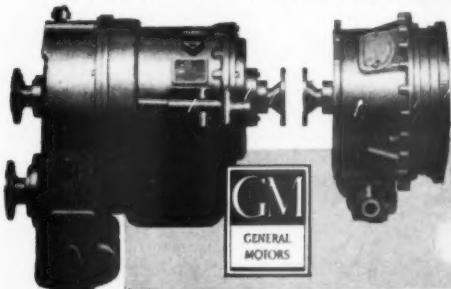
TORQMATIC Drives also cut operating costs

because they take out much of the human element in driving the vehicles—gearshift guess and gearbox clash are things of the past. Allison TORQMATIC Drives "quick shift" hydraulically at full throttle by a flick of a simple control lever.

Send for the Allison pamphlet completely describing these Drives and learn more about their broad application to heavy-duty equipment.

ALLISON DIVISION OF GENERAL MOTORS
Box 894BB, Indianapolis 6, Indiana

MATCHED UNITS BUILT BY ONE MANUFACTURER



Allison TORQMATIC Drives



COMPACT, EFFICIENT HYDRAULIC DRIVES FOR TRUCKS * CRANES * TRACTORS * SCRAPERS * SHOVELS * DRILLING RIGS

SOUTH CAROLINA
SUCCESS STORY

DUPONT

"Out of 43 sites considered, the best was found in South Carolina"



says Robert L. Richards
General Manager, Textile Fibers Department
E. I. du Pont de Nemours & Co., Inc.



DuPont's "Orlon" plant at Camden, S. C.

"Over a long period, DuPont considered 43 different locations for a plant to manufacture 'Orlon'.* We needed land with space to grow on, water in abundance and good rail and highway shipping facilities. We also needed intelligent, industrious workers who would be quick to learn the operation of complex new equipment. All this and more we found in South Carolina. More than four out of five of our 2,000 men and women at our Camden plant are native born South Carolinians."

*"Orlon" is DuPont's trademark for its acrylic fiber.

LOCATE YOUR PLANT WITH THESE 8 ADVANTAGES

Happier, more productive employees

Wealth of natural resources

Cooperative State and Local Government

Abundance of water and power

Nearness to markets

Splendid transportation (land, sea, air)

Mild climate

Low construction costs

Your inquiry will be handled in confidence.
Write, wire or telephone (LD 94) now.

L. W. Bishop, Director
Research, Planning & Development Board
Dept. BW-4 Columbia, South Carolina

BUSINESS FAILURES IN UNITED STATES, 1950

Dun & Bradstreet Magazine

United States
34.3 per 10,000

South Carolina
4.7 per 10,000
(lowest in nation)

**South
Carolina**

WHERE RESOURCES
AND MARKETS
MEET

ment of economics institutions I have tried to present the same materials which you have dealt with so successfully. . . .

JOHN P. WINDMULLER

ASSISTANT PROFESSOR
NEW YORK STATE SCHOOL OF
INDUSTRIAL RELATIONS
CORNELL UNIVERSITY
ITHACA, N. Y.

Patently Inadvertent

Dear Sir:

With reference to the article, They're Products of the Future [BW—Feb. 28 '53, p99], describing the cooling pad developed by Jet-Heet, Inc., we wish to point out that the name "Chillow" is a trademark owned by Jet-Heet, Inc., and is not to be used as the generic name for any device or system in connection with which it may be used. We, therefore, request that in any of your future releases concerning such product, the word "Chillow" be used only as a modifying adjective accompanying the generic name. . . .

We trust that we can count on your assistance in protecting our ownership of this trademark. . . .

JAMES M. RELPH

PATENT ATTORNEY
JET-HEET, INC.
ENGLEWOOD, N. J.

Petrification

Dear Sir:

In the Mar. 14 issue of BUSINESS WEEK, on page 76 under Production Briefs, the following appears:

"Latest wrinkle in garden tools, heat-toughened handles, turns out to be a gimmick known to primitive man. United States Steel Corp. strengthens top-grade ash wood by running it through a white-hot furnace, just as Stone Age man did with fire. After the charred handle cools, it is sanded and coated with a sealer."

This article infers that the application of heat treating ash garden tools is a new idea originating with United States Steel Corp. As a matter of fact, this treatment of ash and hickory farm and garden tool handles was developed in the 1930s by True Temper Corp., and has been used by True Temper exclusively since that time. . . .

J. C. GODDARD
VICE-PRESIDENT & SECRETARY
TRUE TEMPER CORP.
CLEVELAND, OHIO

• We did not mean to imply that the hardening technique is new. Witness our reference to the Stone Age man. But we may have been a little too vigorous in describing what Big Steel is now doing.

**New cotton weed killer
made more "mixable" with
Atlox® emulsifiers**

Chemical ingenuity has developed a new material that stops weeds from growing in cotton . . . eliminates manual weeding. Atlox emulsifiers make it possible to prepare this herbicide in concentrates that mix readily with water for spraying.



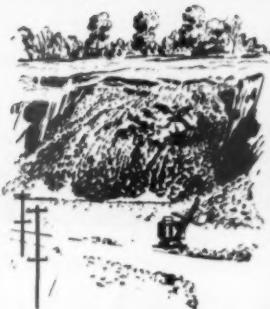
**Sorbitol makes
marshmallow candies
year-round sellers**

Grained marshmallow candies used to be summertime specialties, because they turned hard in cold weather. Adding sorbitol, however, retards crystallization . . . produces a candy that stays in top condition in any climate, sells in all seasons.



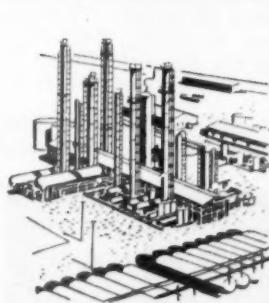
**Rockmaster® methods
improve efficiency
of quarry blasting**

Old-time quarry blasts often made "more boom than bust." In today's ROCKMASTER techniques, successive detonations, timed to thousandths of a second, break tons of rock into easily handled fragments . . . place rock accurately . . . reduce blasting noise.



**Darco® activated carbon
ends foaming, aids output
of synthetic rubber**

In making synthetic rubber, butadiene gets a scrubbing with a copper solution. Foaming, caused by undesirable constituents in the solution, hindered the scouring operation . . . until Darco filtration was called upon to remove these contaminants.



problems into profits... with Atlas

Many industries reduce production time and troubles . . . cut raw material costs . . . and make better products . . . through the application of Atlas chemicals, explosives and activated carbon. These examples are typical. Atlas offers technical assistance in putting these products to work for you, too.

*Serving Industry
Through Chemistry*

ATLAS
POWDER COMPANY
WILMINGTON 99, DELAWARE

Offices in Principal Cities

Hexahydric Alcohols
Surface Active Agents
Industrial Explosives
Industrial Finishes
Laundry Covers
Acids
Activated Carbons

There's no such thing as a "pretty good" egg

EITHER we're for socialism in this country (which drugs its victims to sleep) or we're for freedom, with its obligations but also its self-respect.

Let's not forget that freedom does have its price as well as rewards:—

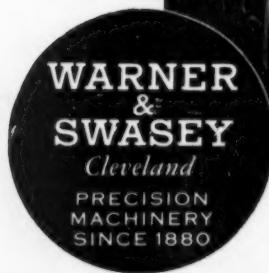
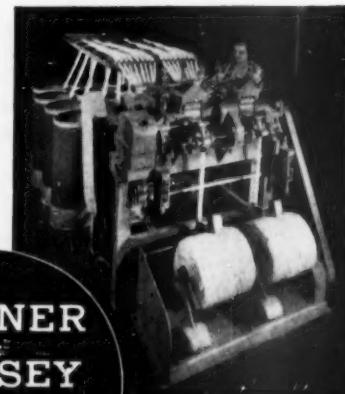
Labor doesn't want regulations, the injunction, wage ceilings. Then labor must make sure it earns the wages it gets, and serves the *public* interest so well that it needs no restraining hand.

Business wants the right to keep reasonable profits. Then it must avoid the mistake Europe made—it must keep investing profits in better machines, and share the benefits of these better machines with

workers in wages, investors in dividends which will attract thrift, and with the public in lower prices.

The public wants greater and greater values for its money. Then it must stop demanding free things from the government which can only be furnished out of taxes squeezed from business. Even American business can't continuously increase values, taxes and wages, all out of the same sales dollar.

If we want the benefits of freedom, it's got to be full freedom for the other fellow as well as ourselves. You can't have a little freedom—you can't be "pretty free"—any more than you can have a pretty good egg.



BUSINESS OUTLOOK

BUSINESS WEEK
APR. 18, 1953



Corporate news is good; volume remains high, and profits are bettering last year's marks.

Many pundits tell you there is little to worry about this year.

In all truth, a sturdy case can be made for the continuation of a very high rate of business. Just don't let yourself get oversold.

Here's the way the optimists present their case:

Consumers will continue to spend as much (if not more) as in the last few months. Business capital outlays will go on rising. Arms spending may not rise, but it won't shrink much any time soon.

Some overlook this extra point: Foreign trade is stable at a level high enough so that Western Europe isn't falling to pieces.

There's enough strength in our economy today to make the optimists' predictions look good for a while.

After all, how can you get upset in view of these two facts:

• Steel is running full blast (except for minor strikes that chip away at output). Order books are clogged for months.

• Autos are out to make this the second-best second quarter in history (if not, indeed, the best). So far as Detroit is concerned, it doesn't look as if there ever would be enough steel.

More autos, more steel; more steel, more autos. Are you getting dizzy?

Consumers, of course, have to buy the stuff factories turn out if the boom is to go on. They look ready and willing. And they may be able.

Spendable income (after taxes) has been rising for 15 months—both in terms of dollars and purchasing power. Consumers have been spending more than ever before—and savings still are "normal" or above.

Look at the Commerce Dept. estimates on what consumers had to spend in the first quarter and how they spent it (at adjusted annual rates):

People had \$245-billion left over after paying taxes. That compares with \$230-billion a year ago.

They spent \$226-billion against \$213-billion. That leaves the present rate of saving at 7.8% against 7.1% a year ago.

Durable goods have been high on the consumer's shopping list.

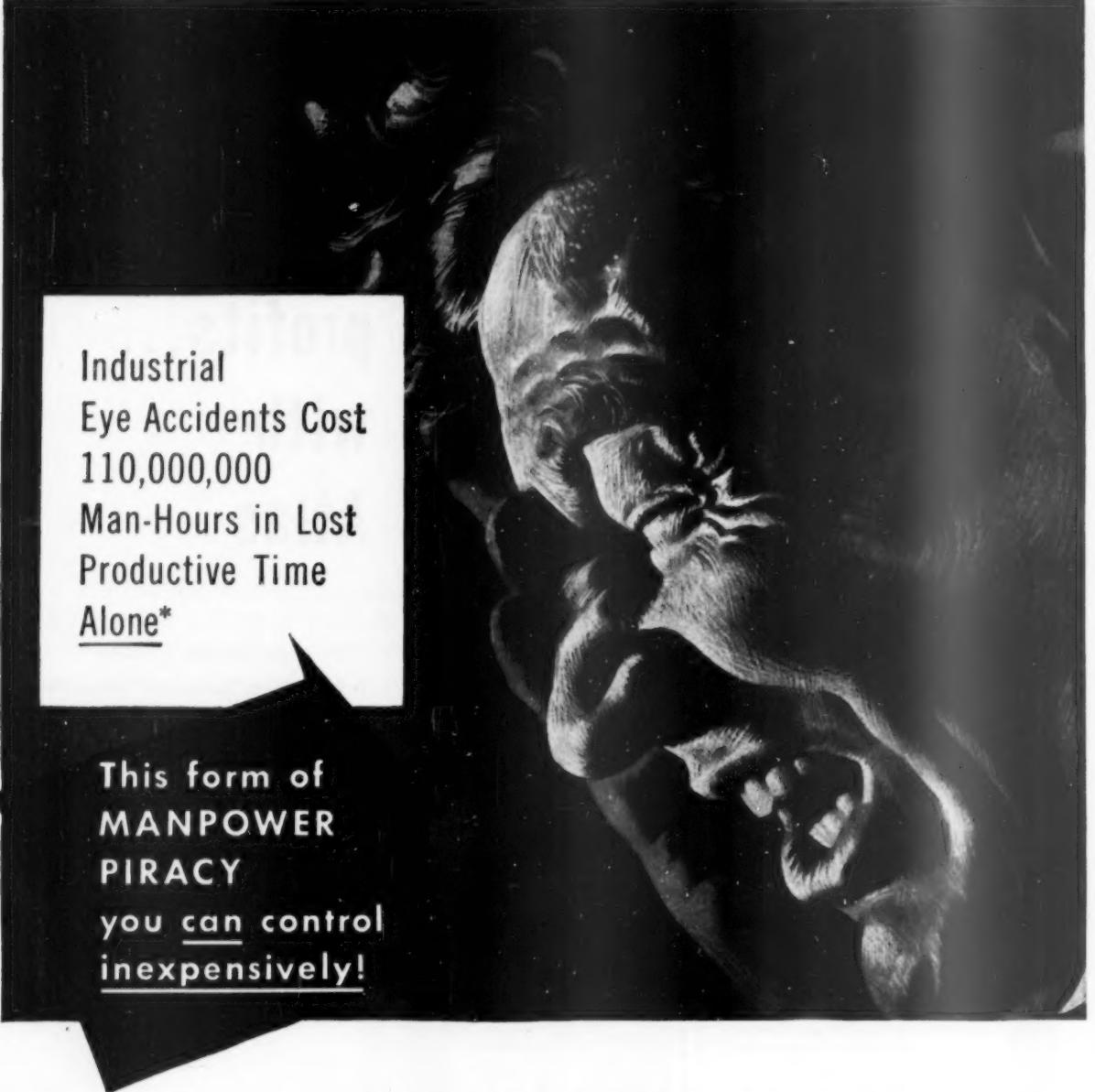
The Commerce Dept. figures he spent at the rate of \$29-billion annually for hard goods (autos, refrigerators, TV, home furnishings) in the first quarter, up from a rate of \$25.2-billion a year earlier.

Spending on nondurables was \$122½-billion against \$118-billion.

If you're worried about consumer demand for durable goods building up to a letdown, you have some precedent. The only time spending on hard goods ever got higher than it is now was in the post-Korea buying waves; that was followed by the slump that lasted, in many lines, well into 1952.

Soft spots in our economic armor, if any are to be found, almost certainly are on the side of inventory.

Business will continue to spend for new plant and equipment (at least



Industrial
Eye Accidents Cost
110,000,000
Man-Hours in Lost
Productive Time
Alone*

This form of
**MANPOWER
PIRACY**
you can control
inexpensively!

When eye accidents hit your plant, here's what happens:

- You lose the productive time of the worker and his machine. (One worker and one machine usually — maybe more if they make a critical part.)
- You may face a serious claim — actual cases show awards of four figures in compensation.

In addition, industrial eye accidents cost money in lowered production and more rejects when substitute workers step into the breach—plus the

direct costs of first aid and medical attention.

Protect your manpower and profits by preventing eye injuries. Contact the nearest AO Branch Office and learn how an AO Eye Protection Program can practically eliminate these costs and pay for itself

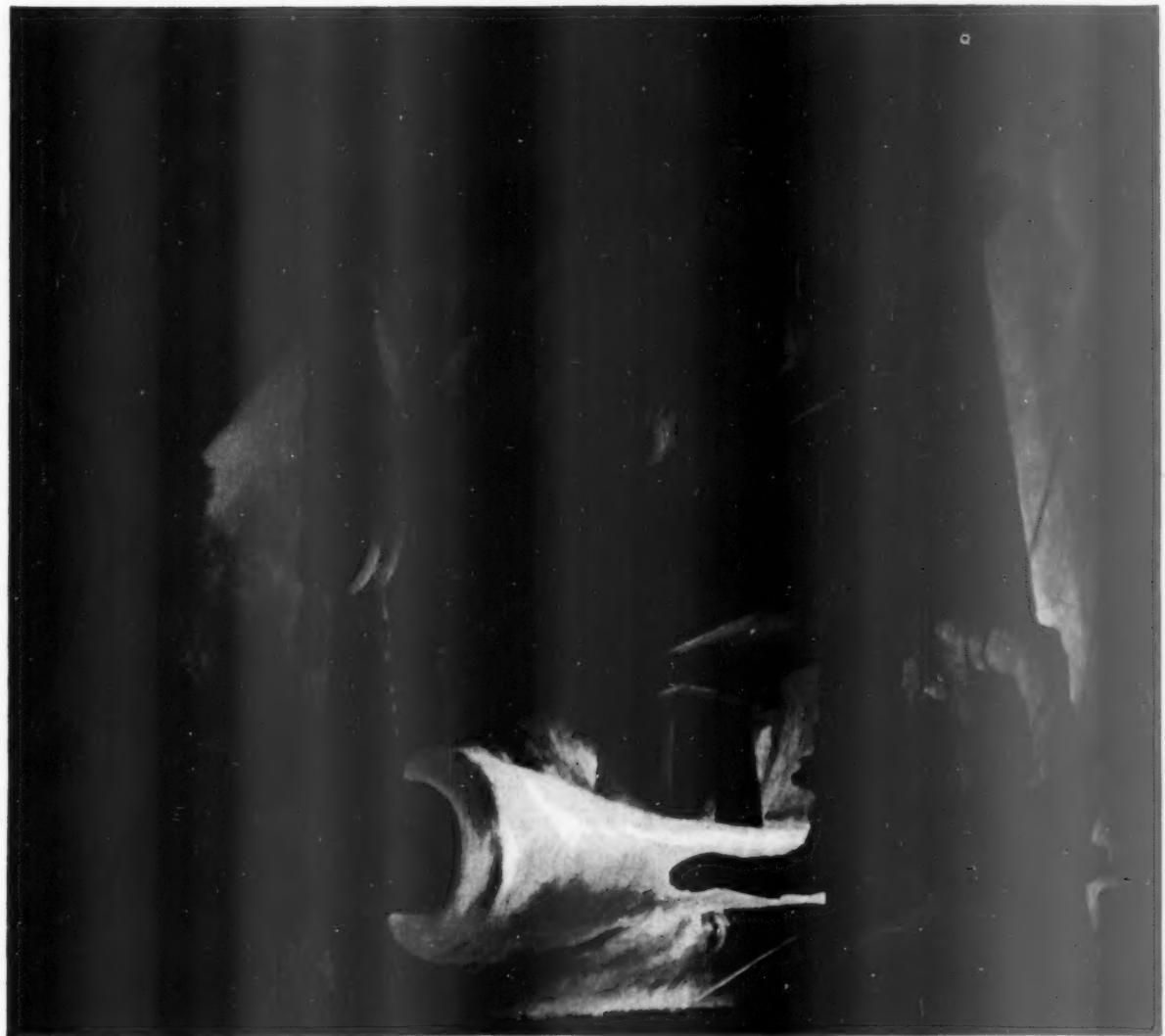
*Estimate. Industrial eye injuries cost over \$5 per employed worker per year—with compensation averaging nearly \$400 per injured man.

in less than six months. Or write American Optical Company, 514 Vision Park, Southbridge, Mass., for free booklet "Improved Industrial Vision" which tells how AO's Industrial Vision Program cuts costs, increases production, decreases accidents.

American Optical
COMPANY
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SOUTHBRIDGE, MASSACHUSETTS • BRANCHES IN PRINCIPAL CITIES



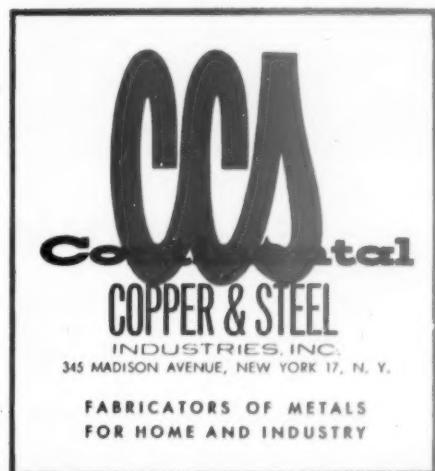
THE GIGANTIC SQUEEZE-PLAY

14,000 tons of pressure! The jaws that put the squeeze on white-hot ingots in this hydraulic press must really be able to take it! And that calls for the kind of alloy steels made by the Braeburn Alloy Steel Division of Continental Copper & Steel Industries, Inc.

Braeburn is well-known for its high-speed and high-alloyed tool-and-die steels. In fact, this company is the *only* source for certain specialized cutting metals! And its long years of research have made valuable additions to the industrial knowledge of our nation.

But tool steels are just one of the metal products made by the seven divisions of CCS for home and industry. They are further proof of the vigorous thinking that has made America the industrial leader of the world, and raised our standard of living to the highest on earth.

ALLOY FABRICATORS DIVISION, process equipment. **BRAEBURN ALLOY STEEL DIVISION**, tool steels. **HANOVER WIRE CLOTH DIVISION**, wire screen, woven wire products. **HATFIELD WIRE & CABLE DIVISION**, wire, cable, cord sets. **NIAGARA FALLS SMELTING & REFINING DIVISION**, non-ferrous alloys. **WALSH HOLYOKE BOILER WORKS DIVISION**, pipelines, snow plows, heavy equipment. **WEILIN DAVIT & BOAT DIVISION**, lifeboats, pleasure craft.



BUSINESS OUTLOOK (Continued)

BUSINESS WEEK
APR. 18, 1953.

until a slump of chilling proportions develops in consumer demand). These are long-range programs; competition makes them necessary.

But accumulation of inventory is a short-term thing. Inventory value has risen by an estimated \$5-billion in the last six months.

That's a powerful business stimulant—but it can end suddenly.

•
Prices are the sensitive barometer of inventory policy.

To be sure, we have had many months of boom (including some helter-skelter inventory accumulation) without any measurable price rise, on the average, in the things industry buys.

But prices recently have been softening—or actually dropping—on many items that long had been very strong.

This shift could be more significant than you think.

•
Inventory retrenchment has effects out of all proportion to the reduction in dollar value of stocks.

The mild slump in 1949—which was primarily an inventory adjustment, and not a very severe one—sent unemployment up to about 4-million.

The next "adjustment" (perhaps next autumn) may be more drastic.

And, when a thing like that begins to knock jobs from under people, you have to revise your ideas on consumer spending pretty sharply.

•
Don't let last week's drop in department store sales scare you into thinking the consumer has already taken to his storm cellar.

It's just the annual shifting of Easter's date. Last week's drop results from comparing the week after Easter this year with the final peak week before the holiday a year ago.

•
Wet weather over much of the country may have set back retail trade, but it can mean more goods sold in rural areas later in the year.

For rain—and snow—have brightened crop prospects in many places.

But, for much of the winter wheat area, prospects still range from precarious to dismal. This applies to the old Dust Bowl and to wheat country southward and westward from that area.

And, even though conditions elsewhere are looking up, the government figures 22% of the acres planted to winter wheat will be abandoned. Last year only 10% of the planted acreage was not harvested.

•
Two years ago Washington carried a campaign to the Cotton Belt, county by county, to increase planting. That drive succeeded—even though the cotton trade wouldn't give a plugged nickel for its chances.

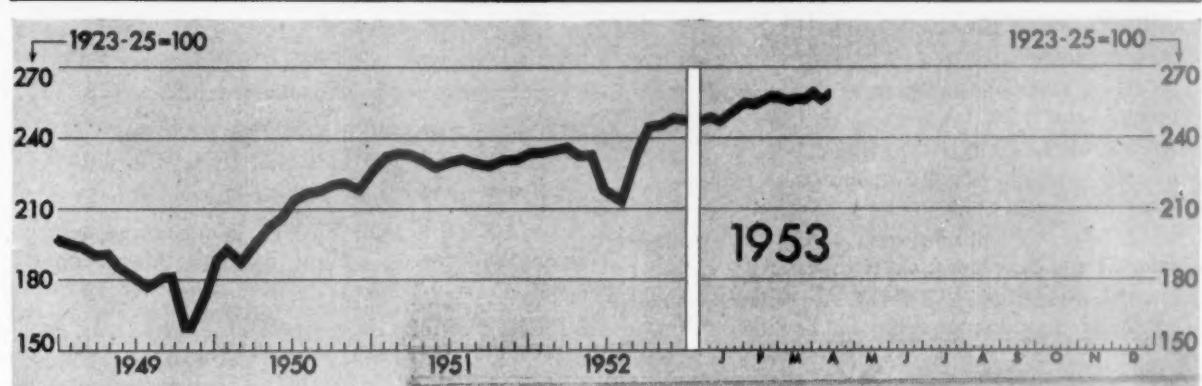
Now the emphasis is reversed. The government wants a smaller harvest. The idea is to avoid a surplus that would make controls over plantings and marketings mandatory in 1954.

Once again, the trade is scoffing at Washington's chances.

•
Cotton surplus, before this year's crop is harvested, will be about 4½-million bales. That's up from 2.3 million two years ago, but it's trivial alongside 1939's 13-million bales.

How heavily it hangs on the market, however, depends on the new crop.

FIGURES OF THE WEEK



Business Week Index (above)

Latest Week	Preceding Week	Month Ago	Year Ago	1946 Average
*258.3	+257.7	258.7	230.1	173.1

PRODUCTION

Steel ingot production (thousands of tons)	2,180	+2,230	2,288	2,038	1,281
Production of automobiles and trucks	175,522	+170,567	165,762	123,180	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	\$48,175	\$49,887	\$49,111	\$45,037	\$17,083
Electric power output (millions of kilowatt-hours)	8,001	8,019	8,138	7,154	4,238
Crude oil and condensate production (daily av., thousands of bbls.)	6,268	6,341	6,450	6,366	4,751
Bituminous coal production (daily average, thousands of tons)	1,334	+1,376	1,350	1,535	1,745

TRADE

Carloadings: manufactures, misc., and l.c.l. (daily av., thousands of cars)	76	79	74	77	82
Carloadings: all other (daily av., thousands of cars)	41	40	40	41	53
Department store sales (change from same week of preceding year)	+8%	+11%	+9%	+7%	+30%
Business failures (Dun and Bradstreet, number)	140	171	165	184	217

PRICES

Spot commodities, daily index (Moody's Dec. 31, 1931 = 100)	414.4	413.6	422.8	433.3	311.9
Industrial raw materials, daily index (U. S. BLS, 1947-49 = 100)	87.9	89.9	92.2	103.0	††73.2
Foodstuffs, daily index (U. S. BLS, 1947-49 = 100)	87.8	87.2	88.0	91.4	††75.4
Finished steel, index (U. S. BLS, 1947-49 = 100)	130.7	130.7	130.7	124.9	††76.4
Scrap steel composite (Iron Age, ton)	\$42.75	\$43.92	\$44.08	\$42.00	\$20.27
Copper (electrolytic, Connecticut Valley, E&M), lb.	30.515¢	30.245¢	29.140¢	24.500¢	14.045¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	\$2.36	\$2.38	\$2.39	\$2.50	\$1.97
Cotton, daily price (middling, ten designated markets, lb.)	32.89¢	32.91¢	33.49¢	41.25¢	30.56¢
Wool tops (Boston, lb.)	\$2.10	\$2.10	\$2.10	\$1.85	\$1.51

FINANCE

90 stocks, price index (Standard & Poor's)	197.4	197.5	208.2	189.7	135.7
Medium grade corporate bond yield (Baa issues, Moody's)	3.62%	3.61%	3.56%	3.49%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	2 1/8%	2 1/8%	2 1/8%	2 1/8%	4-1%

BANKING (Millions of dollars)

Demand deposit adjusted, reporting member banks	52,723	51,802	54,841	51,883	††45,820
Total loans and investments, reporting member banks	76,882	76,827	77,844	73,844	††72,036
Commercial and agricultural loans, reporting member banks	23,297	23,269	23,139	21,221	††9,299
U. S. govt guaranteed obligations held, reporting member banks	29,736	29,547	31,328	31,454	††49,879
Total federal reserve credit outstanding	25,427	25,023	25,941	23,393	23,883

MONTHLY FIGURES OF THE WEEK

	Latest Month	Preceding Month	Year Ago	1946 Average
Wholesale prices (U. S. BLS, 1947-49 = 100)	March	110.1	109.6	112.3
Exports (in millions)	February	\$1,194	\$1,276	\$1,344
Imports (in millions)	February	\$855	\$927	\$893

*Preliminary, week ended Apr. 11.
**Basing pt., less broker's fee.

†Revised.
‡Estimate

§ Date for "Latest Week" on each series on request.



HIGH TIME TO SET THE TABLE

Distant cities become suburbs when you fly. You can enjoy so many more pleasant hours at home. Last year more than two million passengers preferred Capital Airlines.

Dependable, friendly service has been a Capital tradition for 26 years. Isn't it High Time you tried it?

Over 500 Flights Daily Between 75 Major Cities

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AIRLINES

MORE FUN FOR
Everyone
ABOARD!



■ Yachting is as carefree as it's supposed to be when the *cares* of steering are shifted to the Sperry Magnetic Compass Pilot. Hour after hour—day and night—in weather varying from calm to exceedingly rough, the Magnetic Compass Pilot holds the prescribed course *automatically*.

■ The portable Remote Controller, for use outside the wheelhouse, enables the skipper to steer accurately from many vantage points aboard.

■ No wonder more and more yacht owners are turning to Sperry automatic steering to ease the burden of manual steering, add fun and relaxation time for everyone.

■ The Magnetic Compass Pilot brings to small boats many of the advantages that the Sperry automatic Gyro-Pilot® steering control brings to larger craft. And it is backed by Sperry dependable and extensive service.

*T.M.

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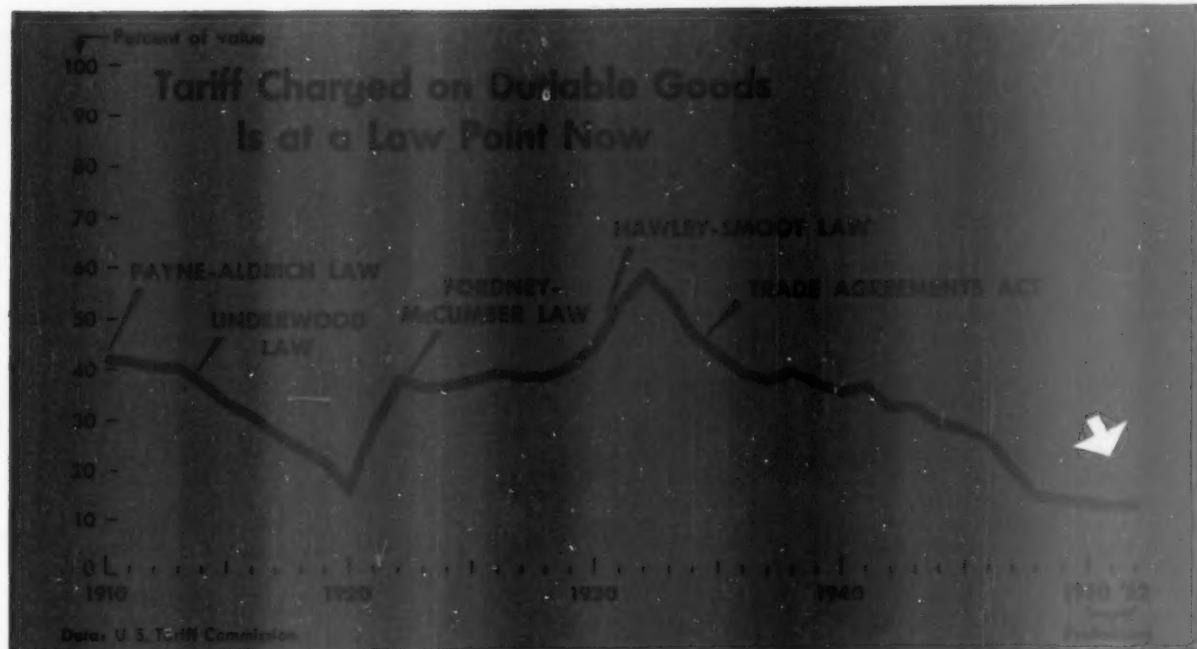
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U. S. IMPORT DUTIES

Are They Going Up Again?

All along, President Eisenhower has been counted as an internationalist.

His long record in the Army and at Columbia, and his political record since last summer's Republican convention, seemed to place him clearly with those businessmen and politicians who want "trade not aid," and all that goes with it.

Now, in the early stages of the long, hard fight brewing in Congress over foreign trade and foreign aid, the internationalists are beginning to wonder just where Eisenhower does stand.

- **Extension**—As a minimum blow for their side, they chalk up the President's strongly worded request for a one-year extension, as is, of the reciprocal trade act—the controversial legislation that has been fought over every two or three years for 20 years.

But Eisenhower has paid a price to get such an extension through Congress this spring without a noisy Republican Party fight. He has privately assured Congressional leaders that he won't try to negotiate any new tariff reductions, as the act would permit him to do.

- **Up to Congress**—Other moves make

it look as though Eisenhower will let Congress find its own way in drafting a more permanent policy. And, as things stand now, that would almost surely be toward higher tariffs.

For one thing, Eisenhower won't be out in front for reciprocal trade. He's leaving it up to Senate Leader Taft and House Leader Martin to push the bill.

For another, he has changed his mind about commissioning Lewis Douglas to come up with an Administration study of foreign economic policy. Instead, the tentative decision now is to let Congress create its own special commission to do the job. A Congressional group would certainly give protectionist views far more weight than would ex-Ambassador Douglas.

These moves came on top of this week's flurry of publicity about Eisenhower's first appointment to the Tariff Commission—an out-and-out protectionist, Joseph E. Talbott, former Connecticut congressman. And for two successive weeks, high Administration spokesmen took directly opposite lines on a proposal for tougher restrictions on farm imports. Secretary of Agricul-

ture Benson plugged for the proposal; Assistant Secretary of State Harold Linder spoke flatly against it.

- **Fight Shaping Up**—Extension of the reciprocal trade act, in accordance with Eisenhower's recommendation, will do two things:

- Generally, it will leave tariffs about where they are for another year.

- It will guarantee another year of infighting for a final decision.

The high tariff vs. low battle can hardly be discussed rationally by the opposite camps. When ardent internationalist meets equally ardent protectionist, the air gets blue immediately. The issue is more apt to produce fistfights than full and free debate.

- **Leadership**—The internationalists insist that more and freer world trade is absolutely essential to future U. S. world leadership—and to continued prosperity and expansion of the home economy. They say the foreign trade issue is more important today than ever before—that if the U. S. doesn't meet it head-on, the free world's precarious economic structure will topple. If our allies can't trade with us, they



THE
TOUGH JOBS
GO TO
TEXACO

There are more than
2,000 Texaco Distributing
Plants in all 48 States.



A good example

is in the 39-plane Flying Tiger Line, one
of the largest freight aircraft fleets in
the world. Flying Tiger maintenance
is a big job — and an important one.

HERE's what Flying Tiger maintenance superintendent Al Goldberg says about Texaco:

"To maintain the Flying Tiger reputation for on-schedule service, we have to keep our planes flying — and effective lubrication, such as Texaco provides, plays a big part in doing this. It is also an important factor in keeping our maintenance costs low.

"My more than 17 years' experience in aircraft maintenance have convinced me that Texaco Aviation Lubricants stand up under extremes of time and temperature. That is why they have been used throughout the entire Flying Tiger system ever since the line began operation."

THE TOUGH JOBS GO TO TEXACO. Here are
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OUR ONE PURCHASE AGREEMENT PLAN
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Steel: It's Geared to Detroit Now

- With orders pouring in, steel men can't see a drop until the fourth quarter of this year.
- But nobody can be sure. For as soon as auto demand slacks off, the whole picture will change.
- Few producers are very worried, though. In fact, they sound like they want to raise prices.

Most steel companies are amazed at the flood of orders coming in now for third-quarter delivery. So, they feel generally that the long-expected slideoff in production and sales won't hit until the fourth quarter.

Some of the smaller companies are even talking about an uninterrupted production rate at or near 100% of capacity right through the end of the year. This week the operating rate is scheduled at 96.7% of capacity.

But others, chiefly bigger producers, are almost unanimous in expecting a drop in output in the last quarter of 1953. One major producer said he wouldn't be surprised if steel began to go off from its peak before the third quarter is over.

The Key—If there is any one thing that is believed to be the key to the steel situation, it is the automotive business. "Tell us when auto sales are going off, and we'll tell you when our business will go off," a chief supplier to Detroit companies said this week.

There is no weakness so far in autos, another steel man said. Our orders from auto customers for the third quarter are coming in at the same high rate. He added, though, that he wondered how all those cars being made this year can be sold.

Going Strong—Other big users of steel are ordering, too, at a merry clip. A major maker of electrical goods reported that he was still picking up some steel at prices above mill levels to keep his own production high. A smaller company in the same field said it was surprised to find it more difficult to get strip steel today than it was several weeks ago.

Appliance makers have been strong customers so far this year. But steel companies think they appear more cautious about their steel requirements for the second half.

Uncle Sam has helped to bolster the steel market, too. The shell-making program is beginning to hit its stride finally. That makes heavy hot rolled bars and rounds in exceedingly short supply.

Slow Going—Merchant wire products, on the other hand, have been per-

forming quite differently. Wire is back to its traditional seasonal pattern of selling slow in winter months. In fact, wire has been slower in the past few months than any time since before World War II. An important producer says this business is picking up again as it normally would.

Just when other important product classifications will achieve that normal balance of supply and demand is the big question. Both sheet and strip will undoubtedly be available for all comers when the auto demand slackens. And



Appeal to Higher-Ups

Singer Sewing Machine Co. passes the word to the denizens of New York City's upper floors. The means: painting signs on the tops as well as the sides of the trucks running out of the company's giant plant at Elizabethport, N. J.

when that happens the whole picture will change.

One Way or Another—Some steel men expect the shift to come suddenly. When demand is met, they say, buying will stop with the brakes smoking. There are others who think the switch from scarcity to plenty won't be that fast, mainly because of unbalanced inventories. They feel that customers will shut off orders for one kind of steel but continue buying others until inventories are better balanced.

No one seems to think the bottom will fall out of the market. Those who are forecasting a lower level of steel operations by the fourth quarter talk about a 90% rate for the industry as a whole. One large company, however, still sees fourth-quarter steel production at about 80% of present capacity.

Due for a Raise?—Meanwhile, the whole industry seems to be itching to boost prices. The only thing that has gone up since price controls were ended is stainless steel. Prices on a lot of other products, both carbon and alloy steels, are probably due for a raise.

But steel men are not rushing to raise prices, mainly because they are afraid to rock the boat on steel wages. They know the union will be making its demand next month. Until they get that and work out a settlement, prices probably will stay where they are.

Steel officials are not saying in so many words that they are going to give prices a boost. But they do seem to be setting the stage for such action.

Too Little—Ernest T. Weir, chairman of National Steel Corp., talked a line this week that seemed to lead only to this conclusion: The steel industry is getting too little for its products. He pointed out that his company's stock is selling below book value, even below current new investment value. National's stock is selling below the \$363.7-million it has invested in its new plant in the last eight years, 1946-1953. One big reason the stock sells so low, according to Weir, is because earnings are too low. Now, if earnings are too low at 100% operating levels, what happens when the industry goes off to lower levels, he wonders.

Benjamin F. Fairless, chairman of U.S. Steel, posed this question this week: "Suppose we must suddenly build a lot of new capacity. Where do we get the money to do it? With construction costs as they are today and with steel prices at their present levels, a fully integrated new plant would probably produce a profit of about 1.5% . . . and where . . . can we find anyone who would be willing to risk his money with us at that rate?"

will have to run to the Soviet bloc.

With equal vehemence, the protectionists insist that our first responsibility is to American businesses and workers—that, whatever else we may do in foreign affairs, competition from imports should not be permitted to cost a single American company its business, or any American workers their jobs.

Eisenhower has clearly left the next move up to Congress. Eventually, the battleground will be around the yet-to-be-created Congressional Commission on Foreign Trade. The bill for this will be sponsored by Republican leadership in both Houses. One idea is a nine-man group—three named by the Senate, three by the House, and three by the President.

If this is the way it finally shapes up, the commission seems sure to be protectionist. The key committee chairmen who must be consulted are almost solidly protection-minded.

• **Reciprocal Trade**—It's still too early to predict how the battle over the commission will go. Meantime, the fuss over the reciprocal trade act will be getting the headlines.

Eisenhower's call for the one-year extension is running up against a House bill, with powerful Republican backing, that has already got up a sizable head of steam. Introduced by Rep. Richard Simpson, a high-ranking Republican on the Ways & Means Committee, the measure would make Tariff Commission rulings binding on the President. Under present law, he can turn down recommendations for duty raises aimed at preventing injury to American producers.

The Simpson bill would also create a sliding-scale tariff on lead and zinc imports, and tough import quotas on foreign oil. It would build up the Tariff Commission in several ways—an open protectionist strategy.

• **The Duties**—The tariff battle goes on almost independently of any general understanding as to what the present American import restrictions actually are.

The protectionists argue that the U.S. already is close to being a free trade country. They point to the drastic reduction under RTA in the average rate on dutiable imports—from over 50% in the early '30s to 12.5% today (chart, page 25).

The average rate, though, is somewhat deceptive. It's heavily weighted by the fact that some rates are very low, especially for certain raw materials with specific duties. At the same time, many rates for manufacturers are so high that little can be imported over the tariff wall.

Actually, there are about 2,500 separate duties now in effect. About 500 of these are 50% ad valorem or higher. Several hundred items carry duty of

25% or more. Some watch parts and assemblies carry a 790% rate.

Actually, the tariff adds more than meets the eye to the consumer's price for an imported item. State Dept. statistics show that a \$1 increase in duty becomes a \$4 increase at retail.

• **Manufacturers**—Among the higher U.S. tariff rates are those on manufactured products from our allies in Western Europe and Japan. Duties on silk, dolls, scientific instruments, and cutting tools range from 30% to 90%.

The clash between protectionists and free traders has been going on sporadically since 1890. Lately those plugging for more foreign trade have been joined by some recruits. Henry Ford II and the powerful auto industry generally, the National Assn. of Manufacturers, and the U.S. Council of the International Chamber of Commerce are hip-deep in the scrap.

What they claim, actually, is that we need unilateral reduction of tariffs by the U.S. in order to build up dollar earnings abroad. They also say that much of the reduction in tariffs has not boosted imports because the rates were still high enough to block sales in the U.S.

• **How to Pay?**—The catchy label of "trade, not aid" has become the slogan of the low tariff advocates. They have hammered the theme that the U.S. must export at a high level to remain prosperous, that exports are bound to

slump if foreign countries can't earn the dollars to pay for them.

They have some new ammunition, too:

• The Public Advisory Board of the Mutual Security Agency recently concluded that a moderate reduction of U.S. trade barriers would boost foreign dollar earnings by \$700-million to \$1-billion per year—and that fewer than 50,000 U.S. workers would be adversely affected.

• And another estimate—by Dr. Howard Picket of the Congressional Reference Service—is that if all U.S. tariffs were dropped temporarily, U.S. imports would increase by \$1.2-billion to \$2.6-billion yearly. The argument cuts both ways, but the internationalists say it wrecks the protectionist argument that lowering trade barriers would hurt the U.S. without helping our allies.

For the long run, the internationalists think they have the edge—that enough U.S. opinion will eventually see that it is to the economic interest of the majority to favor more trade.

For the short run, the protectionists look strong. They hold the key positions in Congress—and they can accomplish a lot by merely dragging their feet. They won't make a last-ditch fight against the reciprocal trade extender when hearings open next week. But they aim to make it clear that this is as far as they'll go in this direction.



Naguib's Cabinet at Boot Camp

Gen. Naguib of Egypt runs a military government in more senses than one. He has started a program whereby his cabinet min-

isters get a weekly stint of military training. There are 14 members in the cabinet, but two have been classified 4-F.

the larger and more experienced companies.

• Construction of more dual purpose plants should be encouraged, plants that can turn out civilian goods or specific weapons as needed. These plants, plus the permanent arms industry, would provide the core of future defense production.

• The Vance plan for stockpiling machine tools and keeping them current (BW-May 10 '52, p33) should be abandoned—on the grounds that it costs too much. If not scrapped entirely, the \$500-million program should be pruned down to fit the needs of the dual purpose plants alone.

• **Tough Going**—When Wilson expounded his ideas to correspondents covering the Pentagon, it was evident that he was having a tough time whacking off the \$4-billion to \$5-billion that must be his share of the economy program if the budget is to be brought into balance. And he thinks that a contraction of the broad base would save money, speed up immediate arms production, and strengthen the armed services.

Actually, procurement services were taking some steps in this direction even before Wilson spoke. Some retrenchment was in order, with defense needs leveling off or even declining. And, it was evident that there would have to be some reduction in the number of contractors if the defense budget were to be trimmed by anything like \$4-billion.

• **Opposition**—Still, just about everyone was astounded by the complete reversal of Marshall's policy that Wilson seemed to have in mind. A few Republicans like Sen. Homer Ferguson and Rep. Dewey Short thought the idea made sense both for economy and stockpiling. But generally, there was a solid wall of opposition.

The White House fired the first guns. Spokesmen said that any such major policy change would have to come from the White House or the National Security Council—not from the Pentagon. Officially, the Wilson plan hasn't even been broached to the White House.

Former Defense Secretary Robert Lovett said that Wilson's suggestion would do far more harm than good, especially at this stage of the military buildup. Sen. Leverett Saltonstall, chairman of the Armed Services Committee, told Wilson that there would be stiff Senate opposition to any drastic reduction in the broad base. Sen. Richard B. Russell, ranking Democrat on the committee, said such a change would be a tragic mistake, making the country even more vulnerable to bombing.

Yngvar Brynildssen, Small Defense Plants Administrator, said that the Wil-

son plan would drive small business out of the defense picture, and thus defeat the express intent of Congress.

The generals and the admirals rallied as one man to oppose the narrow-base idea. The brass, since the Marshall program went into effect, have abandoned their old bird-in-the-hand philosophy and ardently espoused broad-base procurement.

In the face of this massive opposition, Wilson came up with some new thoughts. He assured Saltonstall that when he had a chance to explain his real ideas to the Armed Services Committee, it would turn out that there was no fundamental difference of opinion.

• **Dual Purpose**—However that may be, it is widely felt that Wilson has other motives than the simple one of economy. He is, it is said, completely sold on the idea of the dual purpose plant, as opposed to "theoretical capacity." Wilson sees the dual purpose plant as a reservoir of knowhow, skilled workers, and capacity. And he doesn't necessarily mean just his alma mater, General Motors—though he considers GM as the U.S. pioneer in the dual purpose plant.

Wilson excuses the inherent inefficiency of dual plant-tools and parallel lines lying idle when no defense work is on hand—as a necessary evil. A lot of this could be compensated for by special tax write-offs, a proposal that he has submitted to the Treasury for informal study.

• **The Prospects**—When the smoke of broad base vs. narrow base has settled, the defense production picture will probably look something like this:

• Production horns will be pulled in, but not very far. Probably just to the extent that would be forced anyway by a \$4-billion or more economy slash.

• There will be no step-up in rates on weapons that are not in urgent demand. A reduction in contracting for some planes, tanks, and the like is already in the works. Earlier this month, the Air Force canceled some jet engine contracts because improved performance and durability had more than halved the need for spares. Last week the Navy canceled a big Ford jet engine contract being toolled up in Detroit.

• Dual purpose plants will be increased, but slowly. They won't take over until the arms buildup is complete, two or three years from now.

• Some Vance Plan money will remain in the budget. It won't be as much as the \$500-million asked by President Truman, but it will be something, even if the Office of Defense Mobilization has to take it to the White House and the National Security Council.

Bad News for Oil

Administration's decision to press cartel charges against oil companies will get Eisenhower off the hook.

The Eisenhower Administration has decided not to drop the oil cartel charges levied by the Democrats against major American oil companies (BW-Aug. 30 '52, p29).

Instead, Attorney General Herbert Brownell is going to file a civil complaint against the companies for violations of the antitrust laws through an international cartel. The companies involved are Standard Oil Co. (N. J.) Socony-Vacuum Oil Co., California-Texas Corp., Texas Co., Standard Oil Co. of California, and approximately 15 others.

When Brownell took over, the Democrats had criminal charges under investigation by a grand jury. Brownell has been sitting on the case since Jan. 28, when he got a 90-day postponement to study the situation.

• **Opposition**—At that time, lawyers for the oil companies were still hopping over a deal offered by Truman and former Attorney General James McGranery—to switch off the criminal investigation in return for documents needed to back up a civil suit such as Brownell is now filing.

Oil company lawyers flatly rejected the deal at the time, called it blackmail. Now Brownell has announced that he would ask for the necessary documents located in the U.S. when the civil suit is filed, and come back later with a request for documents located abroad, if needed.

• **Same Charges**—Essentially, the oil companies will be facing about the same charges made by McGranery last July. The original cartel case was based on a staff report of the Federal Trade Commission, which charged that the companies conspired among themselves and with foreign companies to choke off competition by dividing world markets, fixing prices and production areas.

On the surface, it looks as though the case would continue to make headlines for a long time. It takes about two years to bring such a complicated suit to trial. But there are a couple of other possibilities. One is that the suit will be allowed to gather dust—which has happened to many another hot antitrust suit. Another, being talked up at midweek, is a consent decree—despite oil company denials that they would agree to any such deal.

However, Brownell's promise to file a civil suit does get the Eisenhower antitrust off a hot political hook.

Speeding Up

Spring auto sales are climbing fast. Manufacturers are putting on second shifts to keep production abreast.

Auto sales in Wayne County (Detroit) are watched as a bellwether for the industry as a whole. Compilations of Wayne's March sales came in this week. The results were just what auto makers like to see.

Volume this March was up 50% over the same month last year—18,070 new-car sales against 11,433. Used-car sales were up, too, almost 50% over last year. New trucks were off a little, but used trucks were well ahead.

• **Harbinger**—Auto companies knew sales were rising before the exact figures came in. And outsiders had guessed it by counting the number of plants putting on second shifts.

The average auto company doesn't like to install an extra shift unless it's absolutely necessary; it's hard to plan for, and it costs premium pay. So when second shifts start cropping up in key plants across the country, it's a safe bet that the industry has struck pay dirt.

The list of two-shift plants is long already. General Motors Corp.'s Chevrolet Motor Division ordered two shifts at St. Louis and Baltimore as long ago as February, added another at Cincinnati last month, and will put on another at Tarrytown, N. Y., on Apr. 27. GM's Fisher Body Division has installed an extra shift, too, at its Cleveland stamping plant.

The same story comes from Ford Motor Co., which hadn't used two shifts in its assembly plants since 1950. The company and its Lincoln-Mercury Division have now put several big plants on double shifts.

• **Optimism**—This growing of production and sales has made many manufacturers a good deal more optimistic than they were at the beginning of this year. Sharp-eyed observers have noticed, for instance, a change in the outlook of GM's president, Harlow H. Curtice. About three months ago he predicted his company's 1953 volume as "about \$9-billion." Last week he changed it to "in excess of \$9-billion."

Ward's Reports, Inc., automotive reporting service, said last weekend that second-quarter schedules for the industry as a whole have been increased, too. U. S. plants have changed their second-quarter goal from 1.8-million units to 1.9-million. Deliveries in March throughout the country, said Ward's, were the highest for any single month in the past two years.



DEFENSE SECRETARY Charles E. Wilson: Just how far do his ideas involve . . .

Changing Arms Strategy?

The Secretary has backtracked slightly on reported plan to shift production from Marshall's broad base to a narrow base. Wilson's goal: economy and speed.

After two months in office, Secretary of Defense Charles E. Wilson seems to have developed some ideas for fundamental changes in the basic arms production program. The trouble is, it's a little hard to nail down just what the ideas are.

A couple of weeks ago, at a supposedly off-the-record luncheon, Wilson outlined what all Washington believes was a complete reversal of the broad-base production setup that is now official policy. The story roused a storm of opposition from legislators, bureaucrats, and military brass. Wilson, in a subsequent statement, said he really didn't mean to change things so much at all.

• **After Korea**—The broad-base policy was laid down after Korea by the then Secretary of Defense George C. Marshall. The policy was approved by the National Security Council and President Truman; it has gradually become accepted as the foundation on which practically everything in the mobilization program rests. Here's how it shapes up:

In time of partial mobilization we need a broad production base. That is, for each end item like planes or tanks, and for their major components, there should be a number of produc-

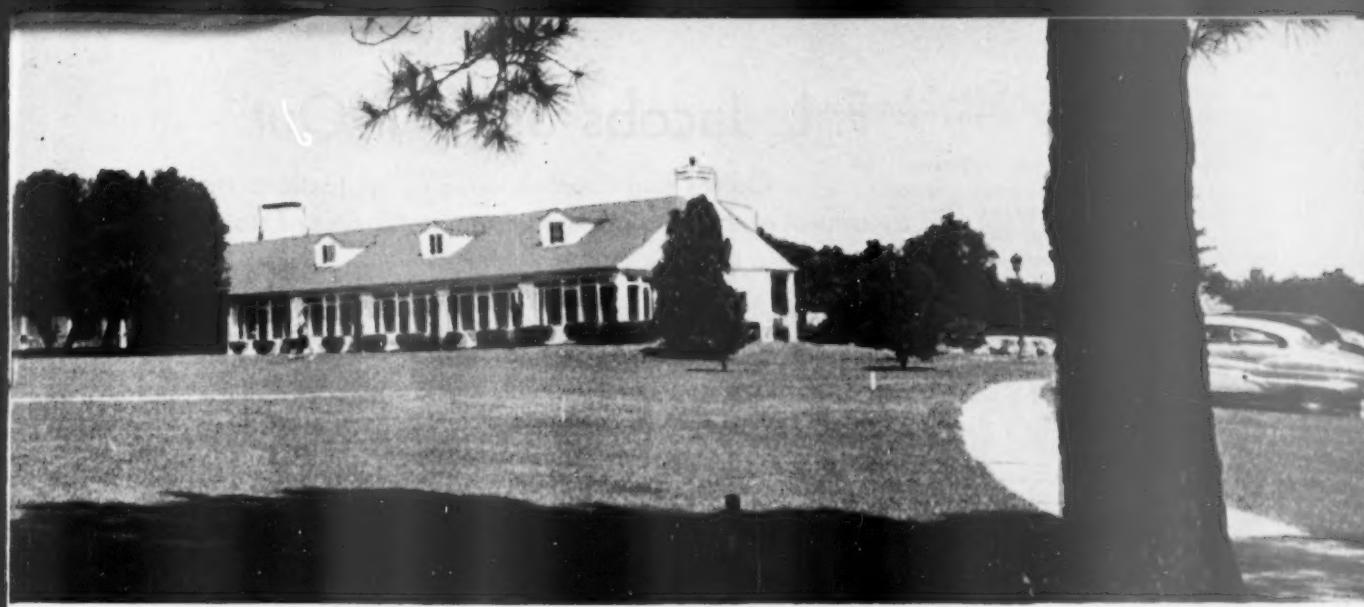
tion lines, running at relatively low speeds. The theory is that our best preparedness, short of all-out war, is to have a lot of arms plants, rather than a lot of arms in being. Then, if war breaks out, we can swiftly speed up production—cutting conversion time by as much as a year.

The program that is ascribed to Wilson would change the Marshall program diametrically. It goes like this:

• Current production should be shifted from many plants to a few, leaving only the primary sources of weapons and a few secondary ones. Producers should be returned to their own lines. That is, auto companies should get out of plane making and leave that for the aviation companies. Marginal, high-cost producers should be lopped off.

• Weapons that can be stockpiled should be produced at full speed—build up a reserve and then stop. The list includes guns, ammunition, utility-type planes, trucks, and tanks. Such a move would cut defense costs and leave us in better posture in case of surprise attack.

• For weapons that are needed now and will continue to be needed because of obsolescence and consumption, production should be narrowed down to



and the Masters Play Golf



BRONZE HEAD of Eisenhower stands in hall. Lounge-dining room in background.



PRO SHOP holds members' clubs. Pinkerton detective lounges in the doorway.



NO ROOM is left for bags or shoes in the small lockers. Club scorns standard luxuries.

to belong, but you might be turned down for membership because of where you live: The club doesn't want too many members from any one state. The word "National" in its name means precisely that.

The club won't discuss membership dues with outsiders. But a hint comes from Clifford Roberts, chairman of the club's executive committee and a partner in the New York investment firm of Reynolds & Co. "The majority of our members," says Roberts, "are 50 years old and older. Fact is, younger men on the whole just can't afford to belong."

• **Golfers Only**—Paradoxically, life at the club is almost Spartan. It's strictly for golf. Says Roberts: "This is not a social club. In fact, we discourage social activities here. Our members belong to clubs back home or at their summer places. They can get social life there if they want it."

For that reason, Augusta National bears little resemblance to the standard golf-country club. It has no tennis courts, no swimming pool, no dance floor, no cocktail lounge. It doesn't even have full-length lockers. The members make something close to a religion of being hard, serious golfers



COTTAGES at Augusta National Golf Club are for traveling members.



Where Eisenhower



LOCKER ROOM doubles as lunch room. The club is strictly for golf; it has no tennis courts, cocktail lounge, or dance floor. The atmosphere is always informal.

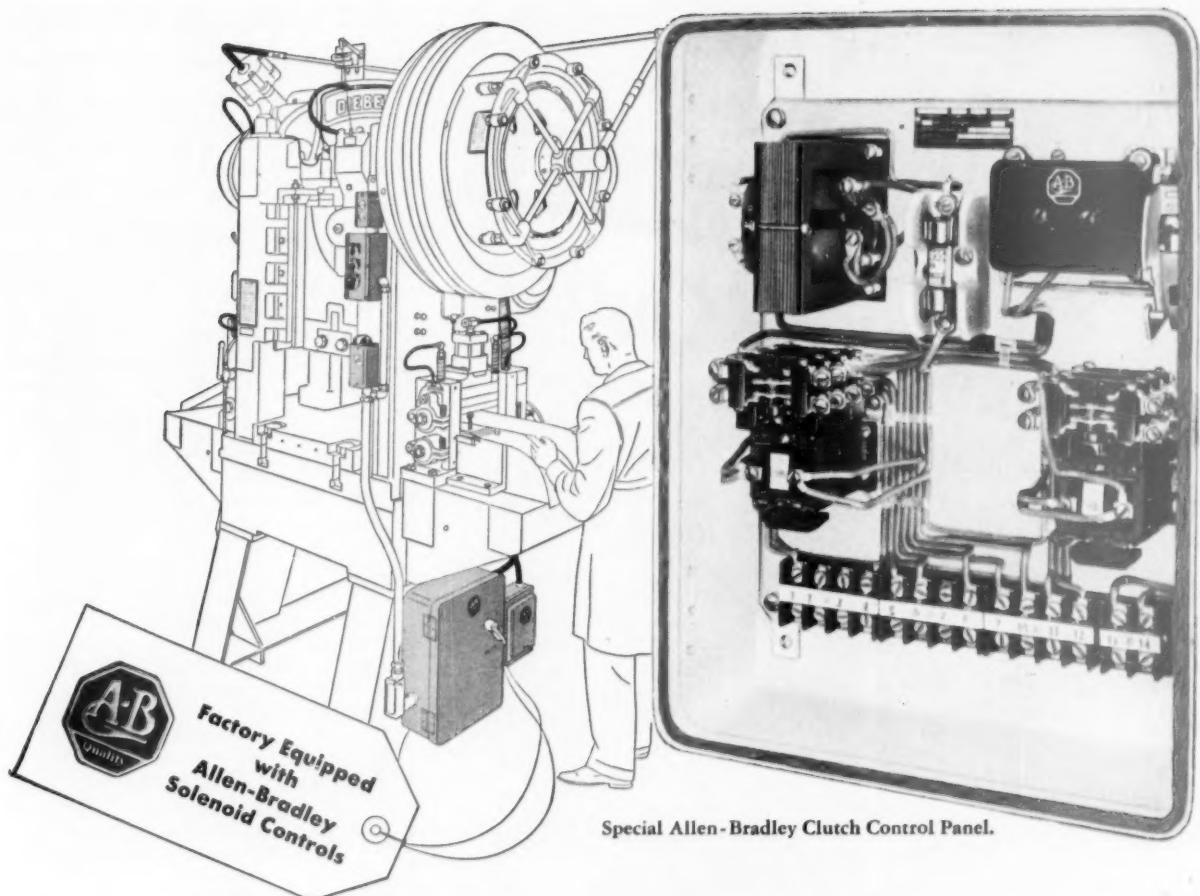
Like most other executives, President Eisenhower likes to take a break from his job once in a while. When the feeling comes upon him, and when he can get away, he picks up his equipment and heads south for the Augusta (Ga.) National Golf Club.

Eisenhower's retreat was enjoying more than its customary share of lime-light this week. On Sunday, it was finishing its 17th stint as battleground for the annual Masters Tournament. While 12,000 watched, Ben Hogan took the honors and established a new 72-hole record for the event. Later in the week, Eisenhower showed up

for some less spectacular—but only slightly less newsworthy—golf of his own.

All this prompts a question. Here's a golf club that's being soaked in two kinds of history. Exactly what sort of place is it?

• **Business and Golf**—In a nutshell, it's an exclusive, expensive club for businessmen-golfers who like to take their golf straight. Membership is by invitation only and is limited to 200. The club has members from 28 states, and from all types of business and professions. There's little limitation on the kind of business you can be in



Special Allen-Bradley Clutch Control Panel.

DIEBEL 40-TON DI-MATIC PRESS operated by Allen-Bradley



Bulletin 709
Solenoid Starter



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Bulletin 800
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Bulletin 700
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Bulletin 800T
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Station

This modern Diebel automatic press is widely used by industry for precision stamping. Here's another manufacturer that has standardized on Allen-Bradley control.

Mass production plants cannot afford the luxury of "down time" of high cost machine tools. Allen-Bradley controls are a guarantee for the continuous operation of the electrical end of the installation. The simple design, only one moving part, and rugged construction of Allen-Bradley controls assure millions of trouble free operations. The double break, silver alloy contacts require no maintenance. The white interiors of Allen-Bradley enclosures make inspection easy.

Allen-Bradley starters cost no more than ordinary control.

Allen-Bradley Co., 1332 S. Second St., Milwaukee 4, Wisconsin



ALLEN-BRADLEY
SOLENOID MOTOR CONTROL
QUALITY

and nothing else. Like religious zealots, they eschew the luxuries of country-club life.

• **Sidelines**—The club does have places to eat, drink, and sleep. These places are comfortable, but simple. There's an informal dining room, an informal bar in the locker room. There are motel-type family suites in one wing. And away from the main clubhouse are three cottages and a large four-family house. In all, the club can quarter about 40 people.

Each cottage and suite has a nameplate on the door, bearing the name of the member who put up money to build it. He's the lifetime "owner" of that particular set of quarters. A member who doesn't own quarters can rent them from the club, using any suite that isn't occupied at the time by the owner.

One of the three cottages belongs to the man who founded the club in 1931 and has been its president ever since—retired tournament golfer Robert T. (better known as Bobby) Jones, Jr. Plans are under way for a fourth cottage—a \$40,000, six-room house to be built overlooking "Ike's Pond," where the President likes to fish. It'll belong to Eisenhower and his family.

• **Burning Tree**—Eisenhower's urge to golf is likely to hit him at times when he can't make it to Augusta. When that happens, he goes to the Burning Tree Club in Bethesda, Md.—about a 10-mi. drive from the White House.

Burning Tree has a reputation for being the top outdoor meeting place of Washington politicians and lobbyists. Among Eisenhower's fellow-members are Sen. Robert A. Taft, Rep. Leslie C. Arends, Gen. Omar Bradley. Yet despite its political membership, the club boasts that you can play golf there without doing business—that a Cabinet member or a senator can do a peaceful 18 holes without being hounded by people seeking political favors.

Eisenhower, members say, is treated casually as just another member (as he is at Augusta). A caddy who sold a snapshot of him to the Washington Star was fired forthwith.

Yet, at the same time, the President is kept under constant security watch while he's at the club. Two Secret Service men check incoming golfers at the gate. Two hang around in the locker room. And generally, two men follow Eisenhower around the course—one on each side of the fairway.

Students of Eisenhower's golf game figure that this constant shadowing may be throwing him off his stride—though it should help with the lost ball problem. He's reputed to be a low- to middle-80s golfer, but has seldom broken 90 at Burning Tree since he became President.

F. L. Jacobs Slugs It Out

Claims and counterclaims fly as factions struggle for control of the auto parts company. Passing of stock dividend provides more fuel.

In Detroit this week, the F. L. Jacobs Co. is commemorating its 40th year with a show of fireworks. But the razzle-dazzle isn't part of the customary ceremony. The sparks are flying from a series of legal explosions and arguments over control of the company.

The firm's new management, the old management, a stockholder group, and others are now in the struggle to get the reins of the business, which supplies auto trim and parts for most producers in the industry.

Jacobs' imposing list of customers—including the big three and most of the independents—has a lot to do with the fervor of the contenders. The company has provided large incomes for its operators. The prospect of a chance at these incomes—plus the desire to safeguard stock investments—are underlying factors in the bitter fight for direction of the company.

• **The Stages**—Briefly, these are the major steps in the recent stormy history of the company:

(1) Late in 1950, Rex C. Jacobs, president of the company, loaned \$120,000 to E. Merl Young (a central figure in the "mink coat" Congressional investigation) to finance an oil company. This money came from company funds without formal board approval and its precise use was not learned until early 1951.

(2) In December, 1951, Jacobs and his directorate, including three other members of the family, were reelected at the annual meeting. A mild increase in corporate profit above the preceding year evidently staved off criticisms.

(3) On June 1, 1952, Rex Jacobs resigned as president, presumably under pressure. However, to cushion that move, his company, J. F., Inc., simultaneously closed a deal approved by the directorate to represent F. L. Jacobs Co. on sales, at a commission of 3%. Based on volume at the time the commissions might have added up to nearly \$1-million a year.

(4) In the fall Clare Jacobs, who had succeeded his brother Rex, resigned from the presidency. The next president was Neil Moore, formerly an executive with Federal-Mogul Corp., Detroit. He was chosen by a firm of management consultants.

(5) On Dec. 15, 1952, a bitter proxy fight at the annual meeting unseated the entire Jacobs group except for Clare, who was reelected as a director. The new management rode in on a tide of

resentment climaxed by the company's loss of \$2.6-million in operations in the preceding fiscal year, ended July 31, 1952. The year's loss reflected a sales drop of some \$20-million, which Rex Jacobs claims came mostly on defense business.

(6) The new board named as president James D. Mooney, one-time Willys-Overland Motors president. Since then Mooney has been directing the company's affairs from New York at a salary of \$50,000.

(7) The new management then filed a federal court suit, seeking to invalidate the sales contract with J. F., Inc., and calling for accounting of \$226,438 collected since the previous June.

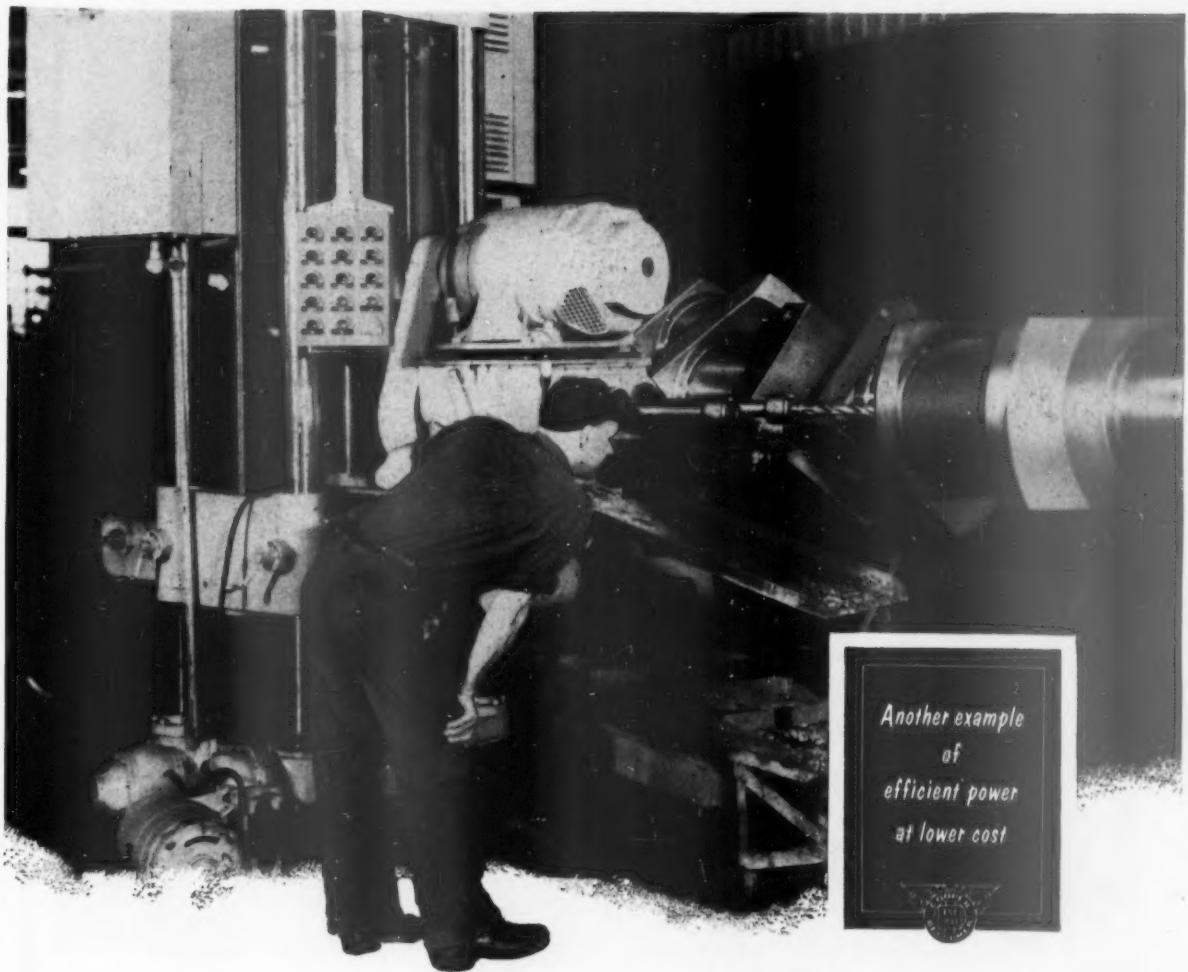
(8) Last Mar. 23, a stockholder group began agitating against the new management. This group objected to options approved by the new directors providing for purchase of stock by two of the directors under then-market prices. At the same time, the group petitioned in state court for a receiver, making charges including conspiracy and incompetency. The options have since been rescinded.

(9) This month the Jacobs brothers answered the federal court suit, saying that the new management is inadequate productionwise and saleswise.

(10) The stockholder group controlling the management then filed, on Apr. 9, a detailed set of charges against Rex Jacobs and his board, alleging about a dozen claims of diversion of company funds to private use.

The ousted Jacobs group, divided or united, has some observations of its own to fling back at the successor group in the company. In October, it says, the Stockholders' Protective Committee, which won victory in December, had told stockholders that none of its members would take a job with the company. But the companies of several of the new directors, the Jacobs charge, are now drawing fees or salaries from F. L. Jacobs.

• **Coming Up**—The turmoil is far from ended. In January the company passed its preferred stock dividend. A former director, Joseph H. Briggs, president of H. M. Byllesby & Co., Chicago investment house which floated the preferred issue, has promised to set up his own protective committee and fight if two more dividends are passed in succession. There is no indication whether company operations will permit resumption of the dividends this year.



Another example
of
efficient power
at lower cost

Tougher-than-ever backbone in sight

FOR YOUR NEXT COOPER-BESSEMER ENGINE

THAT strange-looking machine is the only one of its kind in the world. That's because it was engineered and built by Cooper-Bessemer to eliminate common pitfalls in crankshaft drilling that have plagued big engine builders for years.

For example, with this machine even 26-foot, 10-ton crankshafts can be drilled and reamed at a single setting without handling. This avoids the nicks and other surface damage that might eventually lead to shaft failure. But even more important, this special machine drills far smoother, straighter, more precisely controlled holes than was formerly possible, thereby preventing fatigue cracks and undesired stress concentrations.

This is typical of the advanced production engineering that goes into Cooper-Bessemer engines and

compressors all along the line . . . your assurance of equipment performance at its modern best! It pays to find out about the *new* things being done by one of America's *oldest* engine builders. The Cooper-Bessemer Corporation, Mount Vernon, Ohio, and Grove City, Pennsylvania.

Mount Vernon, Ohio

COOPER-BESSEMER

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Seattle • Tulsa • St. Louis • Gloucester • New Orleans • Shreveport
Cooper-Bessemer of Canada, Ltd., Halifax, N. S.

A NEW Line! TWIN DISC'S Oil-Actuated Multiple Plate Clutches

Design Advantages

1. No adjustment needed to compensate for plate wear.
2. Constant torque capacity regardless of plate wear.
3. Readily adaptable to remote control, thus eliminating complex actuating linkages.
4. High torque capacity, controlled by variable oil pressure.
5. Push button control for less cost, since clutch has its own integral oil cylinder.

On-the-Job Advantages

1. No adjustment downtime, no production lost time.
2. Longer plate life since clutch never needs adjusting, always exerts full design torque.
3. No mechanical controls to take up or adjust for wear.

Specify Twin Disc Oil-Actuated Model MOS-MOD clutches—precision designed for continuous service with a minimum of maintenance.

Write to the Twin Disc Clutch Company, Racine, Wisconsin for complete information.



New Multiple Plate Clutches; available in Models MOS (single) and MOD (duplex, shown).

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Backed for
a Lifetime

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BRANCHES: CLEVELAND • DALLAS • DETROIT • LOS ANGELES • NEWARK • NEW ORLEANS • SEATTLE • TULSA

BUSINESS BRIEFS

The quick and the dead: Quick magazine, the pint-sized weekly, will be discontinued with the June 1 issue, then will be merged with Look. Gardner Cowles, editor and president of Cowles Magazines, blames rising costs and not enough advertising.

A \$50,000 bonus goes to the first person who can bring in an oil well in Tennessee and make it cough up 50 bbl. a day for six months, under a new bill just passed by the state lawmakers. Only 35 wells are operating in Tennessee now, but geologists think the state has excellent oil-bearing possibilities.

Movie houses may face tougher competition from TV unless they convert to 3-D. That was the hint contained in 20th Century-Fox's announcement to stockholders that it's getting ready to release its backlog of 900 films for TV showing. From now on, said Spyros Skouras, president, the company will concentrate on its new depth dimension system, CinemaScope.

Shipbuilding in U. S. yards is at a 21-month low, the Shipbuilder Council of America reported this week. Only 82 vessels were building or on order April 1; 52 are scheduled for completion this year. No new contracts at all were reported during March.

Retiring: Celanese Corp. of America, chiefly a producer of acetate rayon yarn, is getting out of the commercial weaving business, Harold Blanck, president, announced. Celanese will close its Staunton (Va.) weaving plant around June 1; after that it will weave only experimental and promotional goods for its customers.

St. Louis businessmen striving to reform the city's public schools got a setback in last week's Board of Education elections (BW—Dec. 13 '52, p128). The Citizens School Committee, which set out in 1948 to win control of the 12-man board, put over only two of its four candidates in a field of 10. Far from discouraged, the group is already working on the next elections, two years from now.

A major break in rising U. S. oil imports, vigorously protested by independent oil producers, came this week when two big oil companies agreed to cut their intake from abroad. Socony-Vacuum will slash imports 5,000 bbl. a day for four months; Standard Oil Co. (N. J.), 18,000 bbl. daily. E. O. Thompson, chairman of the Texas Railroad Commission, said.

WASHINGTON OUTLOOK

WASHINGTON
BUREAU
APR. 18, 1953



Eisenhower's problems are piling up—foreign and domestic. A lot of issues are now past the study and fact-finding stage, and are ready for Presidential decision. So Eisenhower is faced with the hardest of all Presidential responsibilities—deciding yea or nay. Look at some of the problems:

Korea: Once a cease-fire is signed, the matter of how far we go in making peace with Red China comes to a head. Eisenhower's decision will affect the future of Chiang Kai-shek, of Japan, and of the U. S. soldier. Chiang's designs on the Chinese mainland, with U. S. support, will suffer in direct proportion to the degree of recognition we give the Reds in armistice talks, in post-Korea understandings on trade, on our attitude toward Mao in the U. N. itself. The big if, of course, is how much China wants peace.

Japan needs outlets for trade—and that will cry for a policy once Korea is over. Now we're keeping Japanese labor, shipping, and industry busy helping to supply Korea.

This is how the talking is shaping up. With the fighting over, Japan will need new markets to take up the slack. Either we permit her to trade with Red China along with the rest of the Far East, or we let her sell in the Western World. If we don't do one or the other, Japan might slide over politically into the Red orbit.

A bill of particulars on reciprocal trade is being demanded of Eisenhower by his leaders in Congress. Members ask them why Eisenhower can't take a stand on this or that amendment restricting tariff cutting (page 25) before they support his "as is" extension of the law for a year.

The same goes for tax policy: If Eisenhower doesn't want the Reed bill giving relief to individuals and ending excess profits levies July 1, what's he got for a substitute? This is the question Speaker Martin and Senate Leader Taft get from Congressmen.

A direct fight with protectionists may come on Eisenhower's selection of a commission to study the whole trade question. Eisenhower backed down when he narrowed ex-Ambassador Lewis Douglas' role from a broadside look-see at trade to only the sterling bloc area. Now pro-tariff congressmen are pushing to get good representation, if not a majority, on any commission established after the reciprocal trade extender is voted.

Eisenhower runs a risk in letting Congress in on the selection, but he will gamble that what the commission decides will get further on Capitol Hill as a result. His idea: Ask for less than is ideal, but get more eventually from Congress.

Eisenhower is still marking time on foreign trade, straddling until a final decision is made. His appointment of ex-Rep. Talbott, a high-tariff man, to the tariff commission and of Felix E. Wormser, who wants import quotas on lead and zinc, to Assistant Secretary of the Interior balances off the Presidential message on more free trade.

Close advisers think Eisenhower will finally get tough on trade. His Congressional leaders say privately they will need such a decision if they are to quell the pressure—in the House, particularly—for putting up trade barriers.

Taxes and spending are coming to a head. Eisenhower is on record against letting excess profits levies expire July 1, but he hasn't yet told



"HEY! YOU'RE SUPPOSED TO BE DEAD!"

"Last time I heard about you," said Tom, the paymaster, "you were under a pile of steel in the warehouse. The boys said you'd never reach the hospital alive."

"Oh, yeah?" I said. "That was five months ago. Now look through that box of yours and you'll find a paycheck for me. I've been back on the job a week."

"A miracle?" asked Tom.

"Call it that if you want. When I got out of the hospital three months ago, after they fixed up my crushed pelvis, they wheeled me into the Liberty Mutual Rehabilitation Center. Last week I *walked* out. But don't think I sat around waiting for miracles. They've got people there who knew just what to do for a banged-up fellow like me. Exercises, learning to walk a few steps, more

exercises...first thing you know I was climbing stairs, even running. Now I can swing my old job just as good as ever. So hand over that paycheck . . ."

Everybody gains when a badly injured worker is returned to work and normal living. He and his family gain most of all. His employer regains the services of

a loyal, experienced worker. And compensation insurance costs are kept down.

Rehabilitation is part of Liberty Mutual's Humanics program. The complete program brings together all activities for preventing accidents and for reducing loss when accidents happen. All parts of the program — Industrial Engineering and Industrial Hygiene, Preventive Medicine, Rehabilitation and Claims Medical Service — are directed to cutting down loss in all forms.

This program can help you cut your compensation insurance costs. How . . . and how much . . . you can find out by calling or writing the nearest Liberty Mutual office. Or write to us at 175 Berkeley St., Boston 17, Mass.



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Here's a Sensimatic with
19 Totals!
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This new Sensimatic 500, with 19 totals, brings to business a new tool of unmatched efficiency for a wide range of accounting operations, such as statistical work, sales analysis, payrolls, and the like.

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WASHINGTON OUTLOOK (Continued)

WASHINGTON
BUREAU
APR. 18, 1953

Congress how he wants the revenue made up if the excess profits tax does die. Speaker Martin has been successful in holding off the House. Reed's petition to get a vote on his bill has Martin's opposition and will fail.

The revised budget, due May 1, will be the clincher on taxes. If it shows a balance "in sight," Eisenhower himself probably can't stop tax relief. If it doesn't, he will have a new chance to propose a tax program. The first money bills come up for House action next week. Civilian agency funds and Interior Dept. funds will be voted first. The military and foreign aid bills won't be ready until June.

Eisenhower will have the final say on the big spending item—defense. Thus far Secretary Wilson has snipped about \$3-billion from Truman's fiscal 1954 estimate of \$46.3-billion (page 29). This is still \$1- to \$2-billion short of what budget-balancing advisers say must come off the military budget. So to get defense's share of cuts to about \$4.5-billion, Eisenhower could impose an across-the-board ceiling on the Pentagon, say to \$42-billion—the rate we are spending now.

What to do with Sen. McCarthy is taking up more and more of Eisenhower's waking hours. He's angry at McCarthy for interfering with Dulles and the State Dept.; for that matter, he's just generally mad at McCarthy. But what to do has not been decided, except this: Eisenhower insists to his aides—Don't make a martyr out of McCarthy or whatever is done will boomerang.

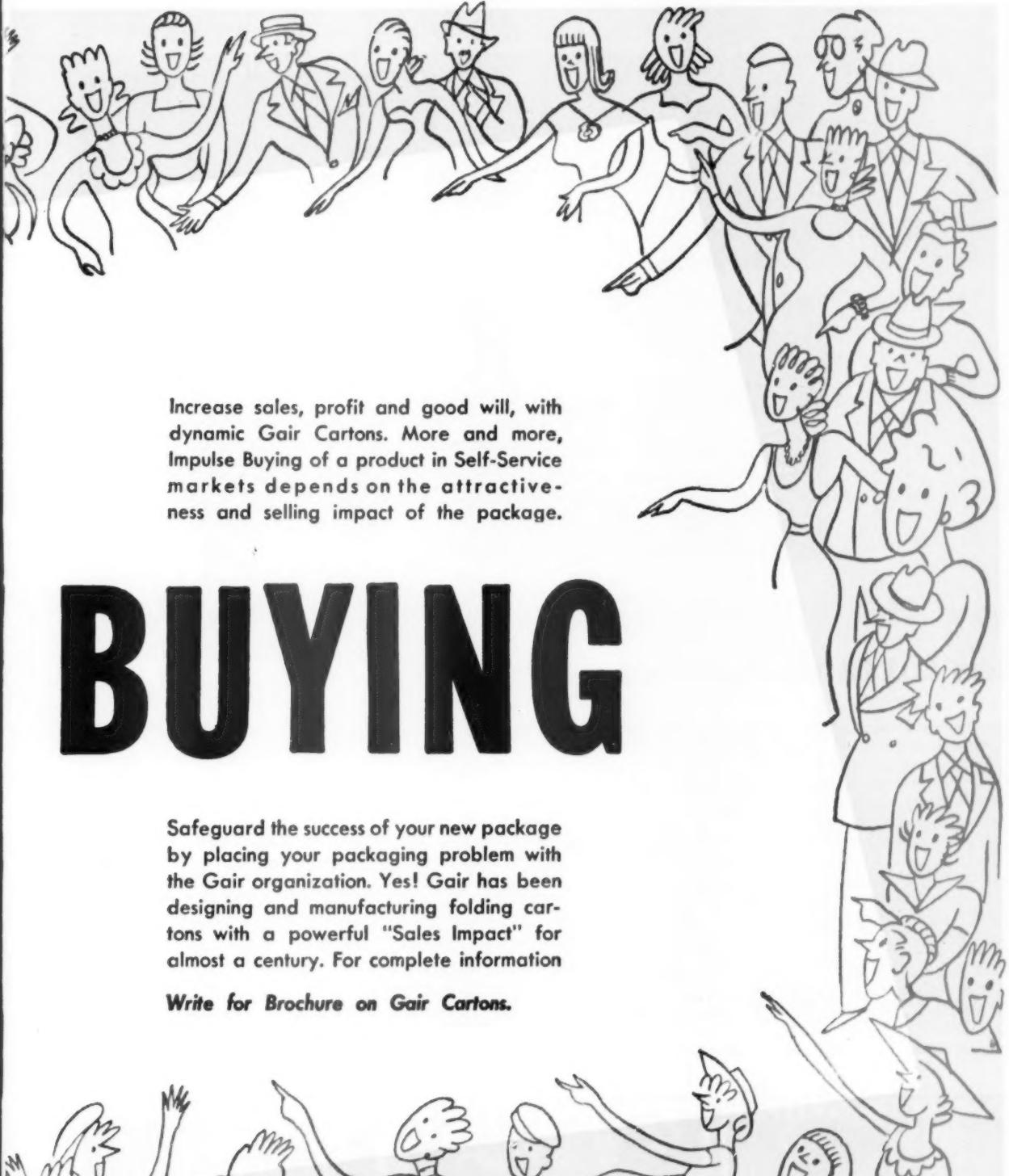
The White House is trying to decide how to handle emergency strikes. Retiring conciliation chief David Cole has put his recommendations to Eisenhower, is awaiting the President's reaction before making his plan public.

One important recommendation: revitalizing the Taft-Hartley law advisory committee, adding Secretary of Labor Durkin and Secretary of Commerce Weeks to the committee along with management and labor representatives. The committee has lain dormant since the first days of T-H. Now Cole thinks it could step into major disputes to forestall White House intervention.

Ground rules for private atomic power plants are shaping up. The Atomic Energy Commission drew them up, got Eisenhower's O.K. They now go to Congress. The government will sell uranium to firms building plants, will let private business own the plants, too. Selling uranium is a lot more interesting to business than AEC's earlier plan (BW-Mar.14'53,p94) of just leasing the material. It'll give power companies a lot better talking point in raising money to go into atom power.

Sale of the government synthetic rubber plants seems a sure thing. Eisenhower has given his blessing. The Administration has adopted the Reconstruction Finance Corp. recommendations intact (BW-Mar.21'53,p40). Next step is for Congress to spell out the disposal plan in new legislation. Rep. Shafer and Sen. Bricker will have the most say.

Government officials will then negotiate sales with prospective buyers. Most will bid for a group of facilities—a package including raw material plants as well as those that combine chemicals to produce the rubber. But negotiated sales will have to get approval of Congress—or the committees in charge—before the sales become final.



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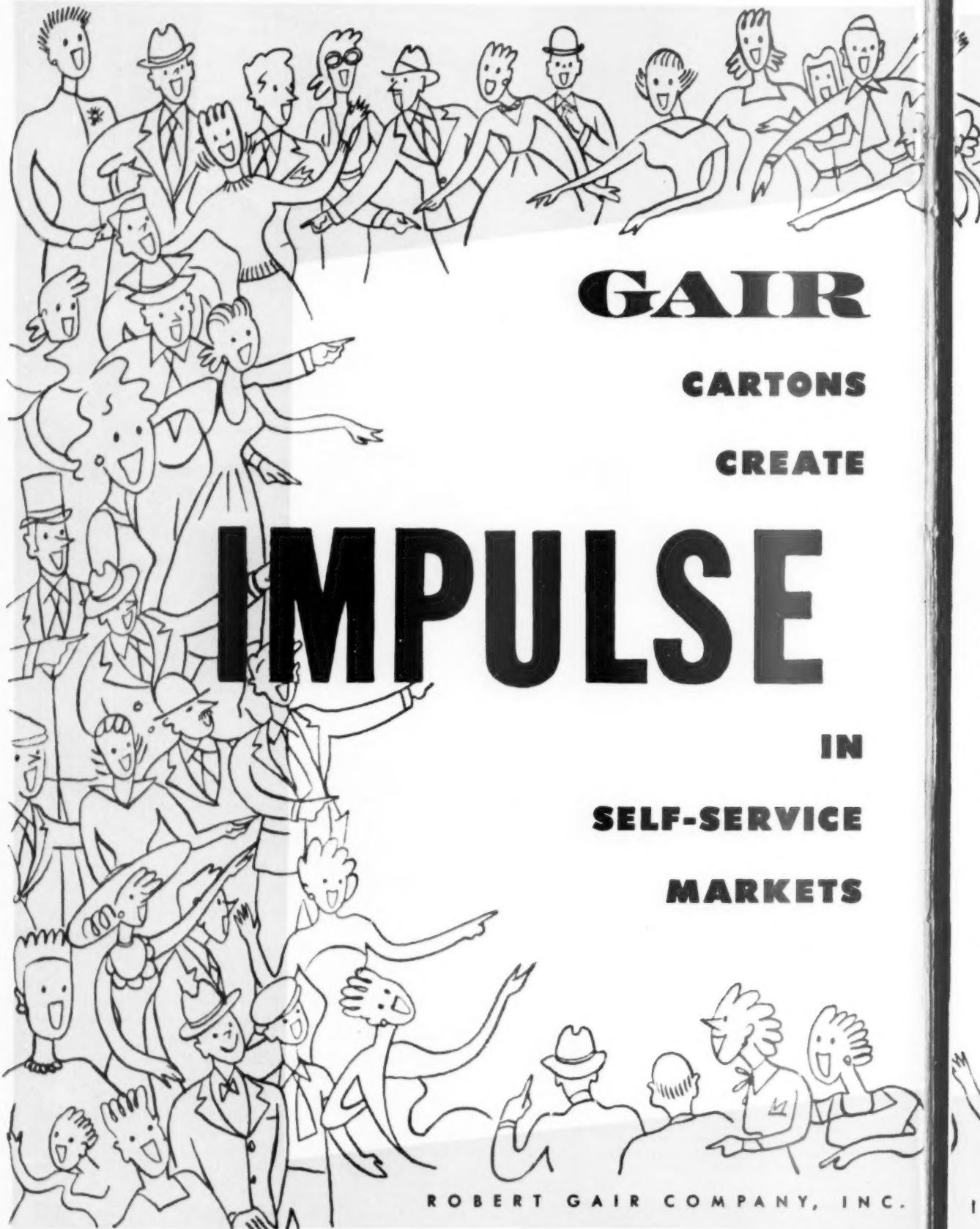
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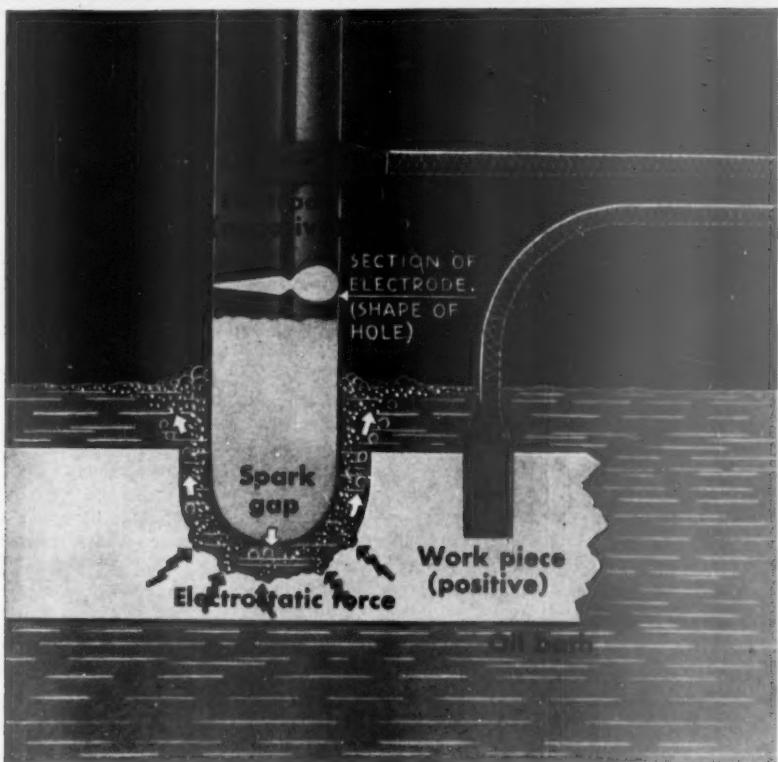
MARKETS

ROBERT GAIR COMPANY, INC.

PRODUCTION



MACHINE looks like a conventional drill press, but it uses . . .



METHOD X for cutting tough alloys. Sparks flashing between positive and negative electrodes put enormous pressure on workpiece, gouging out particles.



PRODUCTS include a carbide die (left) threaded for a screw, a jet turbine blade, and a tool to fit blade's Christmas-tree base.

Sparks Tame Super-Hard Carbide Alloys

E. E. Teubner, a Philadelphia inventor, was once stuck for a new way to machine superhard metals. He wanted to make dies from tungsten carbide for stamping out zipper parts. Carbide dies would have much longer service life than those of other metals, and thus cut costs. But no ordinary machine tool could shape the carbide dies.

Teubner had a hunch that some kind of cutting with electricity would be the

answer. The operation would have to be more accurate than flame cutting, and leave a smooth, clean surface. So Teubner built an experimental rig that bombarded hard metals with electric sparks in the open air. Then he enclosed the whole works in a bath of oil. His machine cut holes through a carbide as accurately as a conventional drill zips through steel.

• **Going Up**—Method X Co. was the

formal title that Teubner gave to his company. With a little capital, he moved out of his basement, and into bigger quarters. Things started moving, and fast. Firth Sterling Inc., Pittsburgh, a top maker of carbides and steels for tools and dies, bought a controlling interest in Method X Co., and made it an affiliate. Teubner, and Firth Sterling, continued the development of the process, with the help of



how THE SHAMROCK has cut maintenance costs

New coatings based on VINYLITE Brand Resins at Houston's famous Shamrock Hotel go on fast—dry fast—get rooms into service fast. Loss of revenue is at a minimum. Applied directly over the old paint, they duplicate the original colors exactly.

After 32 months, rooms decorated with these paints have not needed repainting! Touching-up with a spray gun gives the appearance of a completely new job. Repeated washing leaves color and texture unchanged.

What's more, the Shamrock is using these coatings on exterior concrete, metal canopy and awn-

ing frames, metal furniture—further proof of their decorative and protective qualities. Properly formulated, properly applied, they stick tightly, won't crack, peel or fade. They are tough—with excellent resistance to water, most chemicals, weather, grease, corrosive atmospheres.

Coatings based on VINYLITE Brand Resins have the same features as the VINYLITE Resins and Plastics used throughout defense and industry.

For more data and proved results, write Dept. PB-62 for "BAKELITE and VINYLITE Resin Coatings for Masonry."



GLUE FEEDER bottle for carton-sealing machine is blow-molded from BAKELITE Polymethylene. It's light in weight, easy to handle, won't smash, shows level of contents. For United Can & Glass by Plax Corp., West Hartford, Conn.

FEEDING STATION holding poisoned bait for rodents is made of BAKELITE Polystyrene. Low cost permits large numbers, close spacing for maximum effectiveness. Designed without moving parts. Safely, easily filled. By Plastic Jewel Co., for Motomco, Inc., New York, N.Y.

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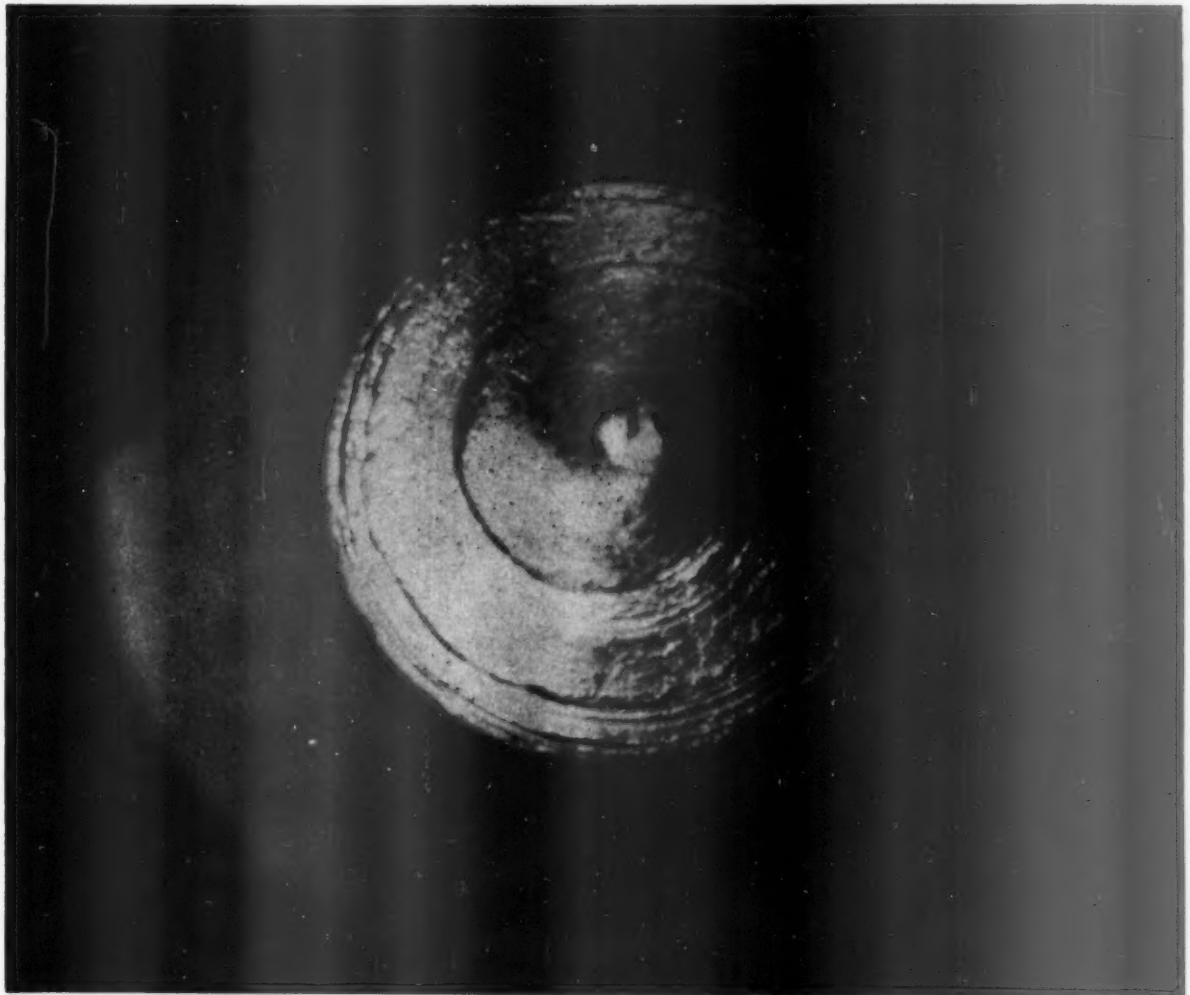
A Division of
Union Carbide and Carbon Corp.

UCC
30 East 42nd St., New York 17, N.Y.

Data courtesy:
Plastic Coating Corporation, Houston, Texas.



DOLL FACES made of VINYLITE Plastic Sheets are heat-formed to three-dimensional details then decorated, or may be printed in color before forming. They're smooth, strong, easily cleaned—resistant to moisture, handling. By Dream Land Doll Co., New York, N.Y.



This end bites!

It won't bite you... just things you use. Recognize it? If not, it's because "close-ups" make it easy to overlook important facts. The principle applies to shipping methods, too.

For instance, you may be so close to shipping practices that you overlook a money-saving fact like this: Instead of a 50 or 100 pound minimum charge, Railway Express uses a graduated scale of charges for shipments weighing less than 100 pounds. *So - you only pay for the number of pounds you ship.*

These graduated-charges of Railway Express make it easy to cut out unnecessary costs. Still wondering about the "bite" of the object above? In a complete picture, you'd see a common "wood-biting" screw.

use the complete shipping service...

Give your shipping budget quick relief. Get a complete picture of shipping methods. Compare your company's present practices with the complete, pickup-through-delivery service of Railway Express.

Learn about the many cost-cutting, trouble-saving advantages you get from Railway Express. See how this nationwide service eliminates *extra* costs you may now be paying - extras like separate charges for pickup . . . insurance . . . receipts . . . for repackaging into smaller units.

After you check and compare, you'll find you get more service for your money from swift, safe, sure Railway Express.

No size or weight limit • Pickup and delivery, within prescribed vehicle limits, in all cities and principal towns • Liberal valuation allowance • Receipt at both ends • Ship collect, prepaid, paid-in-part, or C.O.D. • Ship by Air Express for extra speed.



THE MAKERS OF A
ATLANTIC BOND
Business PAPERS
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Grantland Rice

ALL TIME
ALL STARS
 of SPORT



The Unusual
 PITCHING
 RECORDS
 of
**WALTER
 JOHNSON**

"The Big Train" pitched 21 years for Washington — from 1907 through 1927. During his phenomenal career he won 414 games and, in 5924 innings, struck out a record 3497 men while walking only 1405. Johnson holds the major league record for shutouts with a lifetime mark of 113 . . . won more than 28 games three years hand running (32 in 1912, 36 in 1913, 28 in 1914) and won more than 20 games each year from 1910 through 1919. On September 3, 4 and 5 in 1908, Johnson pitched successive complete games . . . winning everyone by a shutout—a modern major league record.

Another modern record has been set by Atlantic Bond — 12 of America's largest railroads, 7 of the 8 biggest book publishers use clean, crisp Atlantic Bond for better-looking office forms or letterheads. Ask your printer to print your next job on America's first choice—Atlantic Bond.

EASTERN CORPORATION, BANGOR, MAINE
 Ask your printer or write us on your letterhead for Grantland Rice's selections of America's All-Time All-Star Pitchers, attractively illustrated and suitable for framing.



an endowed project at Carnegie Institute of Technology.

• **In Business**—This week, Method X was getting set for another big jump ahead, commercially. After Firth Sterling took over, it was decided to exploit Method X in two ways: (1) licensing the production and operation of machines, or (2) running a jobbing service for firms whose parts volume didn't call for a leased machine. Now, a licensee that is a top machine tool builder is nearly ready to market a standard Method X machine. Method X Co. won't release the name of the tool builder. It says its licensee already has a backlog of orders for the machine, and wants to be let alone.

Method X may open up whole new fields for the carbides and hard-to-machine steels. So far, their wide use has been restricted to "must" applications because of machining difficulties and cost. Take one die on which the company has made cost comparisons. The diamond wheels needed to cut the part run to around \$1,100. A Method X machine does the job for \$42.50, including materials and labor. The machine could conceivably open up a demand that would absorb total capacity of the carbide makers.

Over the next few years, tool and die making will be the big applications for Method X. But some critical end-products will also get into the act—among them jet turbine blades. Method X can shape the blade, a twisting, unsymmetrical form that is hard to machine. It also cuts the base into the Christmas-tree figure that holds the blade in place.

On noncritical industrial products, Method X probably won't get much of a play. Right now, it isn't fast enough for parts that are mass-produced.

• **Like a Drill Press**—In operation, a Method X machine resembles a medium-sized drill press. The cutting tool, made from easily machined brass, is shaped to the reverse of the form or the hole to be cut. When the power is turned on, it becomes a negative terminal. The workpiece, a carbide shape clamped below the tool, is given a positive electrical charge. A motor-driven guide keeps the tool within a fraction of an inch of the workpiece at all times.

When the electrical power goes on, tiny sparks jump the gap between the tool and the workpiece. The sparks are short lived, and never grow into electric arcs. They are kept that way by the surrounding bath of oil, an accidental discovery of Teubner's that spelled final success for the process. The bath can be kerosene, fuel, oil, or a company-prepared compound called Di-electro X.

• **Pressure**—Each little spark puts a tremendous mechanical pressure on the

surface of the workpiece, although it lasts only a few millionths of a second. That force gouges out a particle of the metal, which is carried away by the oil bath. The cutting action is multiplied, of course, by the thousands of sparks per minute. The speed of the operation depends on the size of the workpiece and the electric current applied to the electrodes.

The cutting of shapes straight through a workpiece is similar to the operation of a drill press. The cutting electrode drops down vertically, making a hole that's an outline of its own shape. So you can cut a regular round hole, and even thread it. Or you can give it the shape of a gear. For intricate shapes, the work is moved horizontally, as well as vertically, during the cutting.

As for the finished work, the company points out that there have been no metallurgical changes in the metal. The metal particles are mechanically removed, without melting. So there's no heat that could chemically distort it.

Patents Pending

Squabble in England over shell-molding "improvements" may have repercussions in the United States.

The biggest drawback in using the shell-molding process (BW-Dec. 15 '51, p44) has been the threat of patent troubles.

The process, which involves the use of a sand-plastic mold, was developed in Germany during World War II. After the surrender, the Allies released it generally as captured enemy technology. However, patent offices all over the world said that "improvements" in the system could be patented—and practically everybody using the process has some kind of "improvement" in the works.

• **At Home**—The patent squabbles have not been confined to the United States. Great Britain has been having its share. While most of the 200 or so American foundries using shell molding are convinced they can develop it freely, U.S. patent authorities are following the situation abroad carefully. They feel that British patents on the basic process could put pressure on them for reciprocity under the international law on the Assignment of Patents.

• **Abroad**—Two developments are now bringing the British controversy to a head:

• An international cartel has been formed in England to exact worldwide royalties for use of the process.

• The British Patent Office has

*a Plymouth Locomotive
may be your best buy, also!*



Ohio Edison Company is using a 50-ton Plymouth Diesel-Electric Locomotive for day in and day out service. Operating over an old track with tight curves and a 2% grade, the Plymouth pulls 12 loaded coal cars from the corporate limits of Marion, Ohio, to the company's Scioto Power Plant—a distance of 6 miles.

For your job, too, you'll find Plymouth your best value. Every model is engineered for endurance, packed with power, and built with the know-how acquired from 39 years of producing "industry's smoothest switch-

ers." Sizes range from 3 to 70 tons and you have your choice of gasoline and Diesel mechanical, gasoline and Diesel Torqomotive Drive*, and Diesel-Electric drive. To find out how a Plymouth can cut your costs on switching and hauling operations . . . write to PLYMOUTH LOCOMOTIVE WORKS, Plymouth, Ohio.

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Plymouth transmission with hydraulic torque-converter.

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of highest precision*

began with — bombsights . . .

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of highest precision*

**continues with — highly advanced instruments
and systems . . .**

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*instruments and systems
of highest precision*

**for all branches of the Military Services
and many segments of Industry.**

Norden


*instruments and systems
of highest precision*

**Skilled instrument makers and engineers
find a challenge here.**

Norden

MILFORD, CONNECTICUT


*instruments and systems
of highest precision*

WHITE PLAINS, NEW YORK

published specifications for two applications covering basic shell-molding processes.

• **Cartel Agreement**—Both developments center around Polygram Casting Co., Ltd., a small English foundry now operating out of London. In the cartel agreement, Polygram is tied up with Crown Casting Associates. This is the German firm formed by Johannes Croning, who is generally considered to be the inventor of shell molding.

Polygram claims it has developed its process with Croning's exclusive help. Specialists who have studied the patent specifications agree that Polygram's technique is similar to the "improved" process that Croning has tried to patent in the U.S. and elsewhere.

Under the terms of the cartel agreement, Croning receives stock in the English company. In return Polygram gets exclusive rights to exploit shell molding in the United Kingdom and the rest of the British Empire. Crown Casting gets the rest of the world. Since Croning has had great difficulties in getting established in the U.S., latest rumors are that he is abandoning his interests here in favor of Polygram.

The cartel feels that it has a good chance of collecting royalties in Europe, but it appears to be in for a dogfight in England where Polygram now has 15 licensees. Polygram's control depends on 23 English patents. The company has already been issued 15 covering binders, plastics, and machines to make molds. The other eight are pending. Two of the remainder are on basic processes.

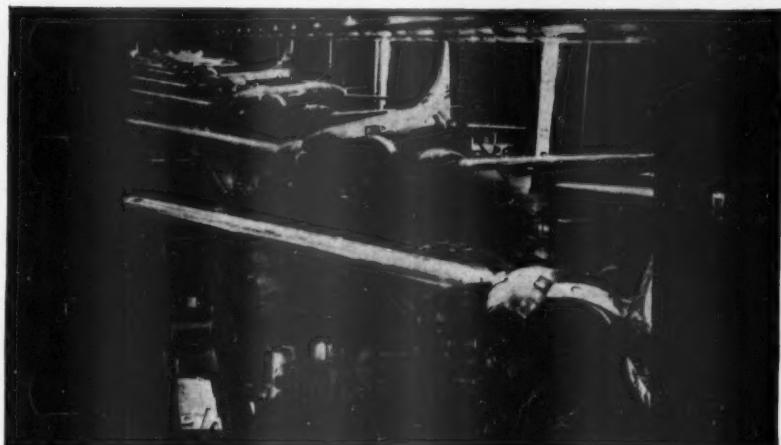
• **Opposition**—Specifications on the controversial pair were published late last year by the British Patent Office. This doesn't guarantee a patent, but it does indicate that the Patent Office feels Polygram has a case. Other companies are now preparing to challenge the claims made in the specifications. Bakelite, Ltd., and Langley Alloys, Ltd., have requested long delays to prepare opposition. Action is expected in the next two or three months.

Polygram already holds a patent on its own shell-molding resin. If it gets a patent on the process too, competitors' resins won't stand a chance. Polygram would be able to tie up the process completely. Without the basic patents, Polygram will have trouble with licensees. One company, MacMillan Foundries, has already broken away. It claims it was hoodwinked into a license.

Even if the patent is granted, there are bound to be further squabbles in the courts. The opposition is confident that it can stop issuance of basic process patents at one stage or another. Its case would be based primarily on the facts that (1) the alien property law permits free development, and (2) Polygram's specifications do not describe the process fairly or sufficiently.



4 But an air view of the same area spotted a lot of other wasted space in the production line. It showed that by compressing the line two new stations could be added.



5 On the plant floor storage space looked like a massive wall of boxes. Aisles got blocked and it was hard to get materials out. But officials didn't know just what to do about it.



6 From the air they immediately saw the solution—that supplies could be piled much higher. That way aisles were widened and materials handling was speeded up.

on Aircraft Production

(Story continues on page 50)

How to Increase
Machine Tool Output with
**Engineered
Rebuilding**

Another example from Simmons' Casebook



REBUILT...REDESIGNED... ITS PRODUCTION TRIPLED

It used to take a manufacturer of steel floor plate 350 hours to groove the alloy rolls which made his plate. "Too slow," they said, and asked Simmons if they could convert a standard lathe to their special purpose. Here's how Simmons' engineers did it:

- Rotation of the roll, traverse of carriage, and movement of carriage head were all synchronized, and all gears and clutches kept free of lost motion.
- Special gearing devised and built which maintains same groove spacing on rolls of varying diameter.

In addition, the lathe was completely rebuilt—all sliding surfaces replaced...new bearings installed throughout...new motors and wiring.

The result? Average machining time was cut from 350 to 120 hours. Two thirds!

Rebuilding can get results like this for you, too. We'll rebuild and modernize your tools, or buy used ones and rebuild to your needs. Guaranteed performance—delivery within weeks.

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SCRIBE introduces vivid, professional quality recording with magnetic tape. Your secretary hears every syllable as you said it, avoids costly, time-consuming errors.



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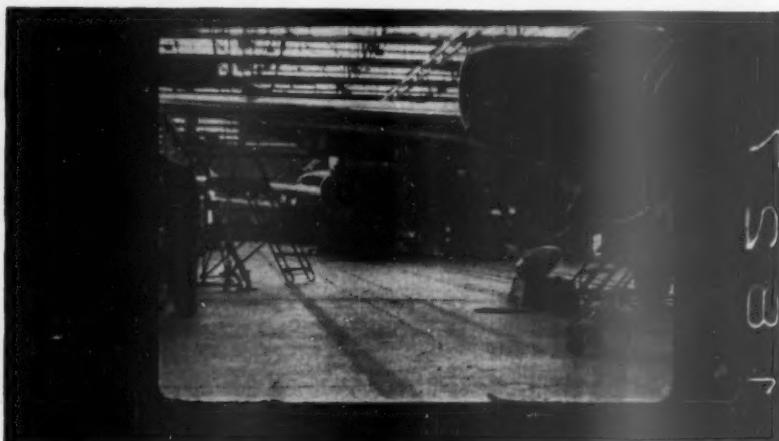
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Please send booklet on Scribe tape dictation (no obligation, of course).

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1 From the ground, officials at Consolidated Vultee saw that plant layout was cluttered and slowed operations. But they were too close to tell why. So they took to the air.



2 Overhead movies showed up the trouble spots and suggested answers, like simply turning planes 30 degrees this way, which gave a lot more room to work in.



3 Walking through the plant, management could see that work areas were overcrowded with ladders and other equipment that gobbled up space for no good reason.

Getting a New Angle



Men Can Approach Fire Safely thanks to cooling effect of fire-fighting WaterFOG.

The fire that launched a new idea

Not long ago, Rockwood engineers decided to design a new fire fighting system.

This system was for oil-filled transformers and would require so little piping that transformers could easily be removed or replaced without disturbing it.

To do so, meant engineering WaterFOG heads in such a way that a few would quench a transformer fire!

Dramatic proof that they succeeded is shown in the photograph above. Four of the new heads were installed around a simulated transformer. Then transil oil

was pre-heated to 50° above normal flash point and pumped under pressure over and down the outside of the structure. The raging fire that resulted was far more serious than would occur under normal conditions.

Instantaneously, the heads put out the fire . . . swiftly discharging millions of particles of cooling, heat absorbent water on the oil, choking off oxygen and rapidly reducing temperature below ignition point.

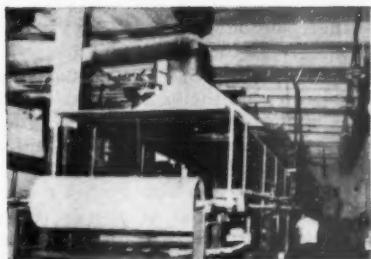
Rockwood WaterFOG systems are but

one of many types of fire-fighting equipment in which Rockwood has successfully engineered water to cut fire losses.



**ROCKWOOD SPRINKLER
COMPANY**

*Engineers Water . . .
to Cut Fire Losses*



A Rockwood Sprinkler System has protected the fabric coating plant above against fire since 1910. Highly flammable solvents are used in the operation above.



Rockwood FogFOAM Turret Nozzles, mounted on fire truck, control plane crash fire above in seconds. FogFOAM combines water and a special Rockwood FOAM liquid.

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112 HARLOW STREET
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Please send me the 12-page, illustrated booklet, "15 Types of Fire Protection," giving actual case histories of different types of fire control.

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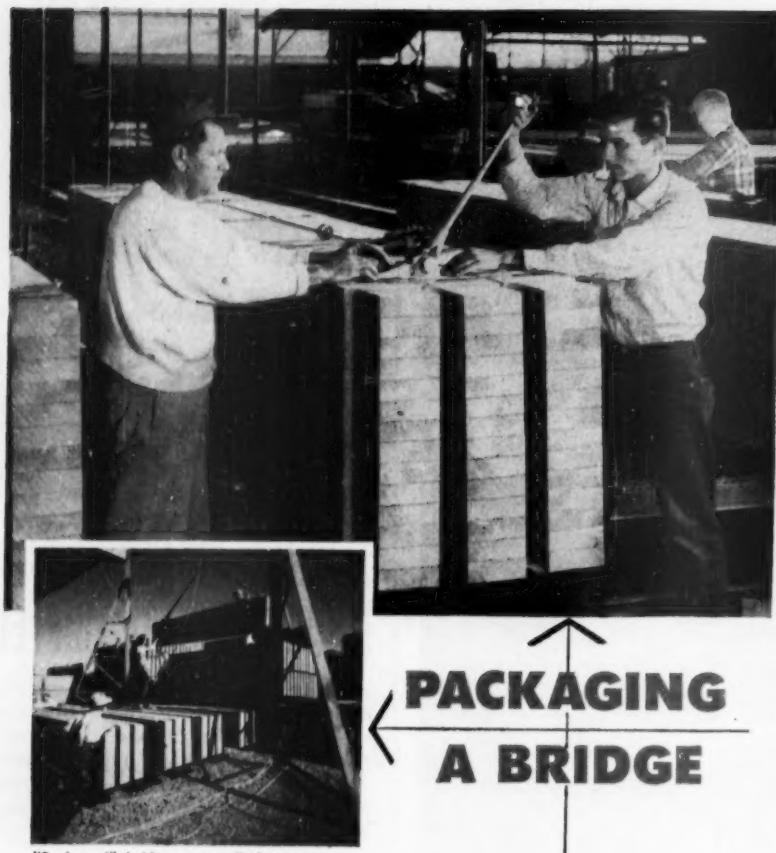
Title

Company

Street

City

Zone State



"Packaged" bridges are rolled on conveyor to loading platform, then quickly hoisted aboard flatcars. Photos at Smith Pipe and Steel Company, Phoenix, Arizona.

↑
PACKAGING
 ← **A BRIDGE** →

Brainard Strapping Service speeds handling of defense materials

These prefabricated Bailey Bridges, used by the armed forces to cross rivers, culverts, etc., are now securely packaged into unit loads with the Brainard Strapping System. This method permits fast mechanized handling of the product from manufacture to shipment.

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Brainard can help you streamline your materials handling, and meet armed forces shipping specifications. Have an analysis of your handling and shipping operations now—Brainard salesmen are qualified to recommend and demonstrate the most efficient system for you.

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STEEL STRAPPING

"... does Monday-morning quarterbacking by studying motion pictures..."

AIRCRAFT starts on p. 48

When B. F. Coggan took command of production at Consolidated Vultee Aircraft Corp. in 1952, he couldn't see the forest for the trees in the two big plants under his direction (total employment is 21,000). So, he borrowed an idea from the football coaches: In effect, he does his Monday-morning quarterbacking by studying motion pictures taken of Saturday's game.

• **Too Close**—This is the way Coggan figured it. A plant layout might look perfect on paper, but once an operation gets under way, all sorts of unexpected situations can crop up. Production orders and techniques change; layouts have to be rearranged to accommodate them on the spot.

Coggan felt that he couldn't get the over-all feel of the layout just by walking through and inspecting. Things that could be corrected were bound to get by—simply because he was too close to them.

• **Overhead**—Movies of plant operation that can be studied carefully provided the perfect answer. Coggan instructed his cameramen to ride overhead cranes, perch on rafters or any other vantage points they could find.

Coggan has tried his idea on most of the aircraft production lines in his plants, but his favorite is the Convair Liner 340 program (pictures, pages 48, 49), which has shown spectacular improvements.

• **A Big Difference**—It now takes about 60,000 manhours to build a model 340; it took 170,000 a year ago. The movies have played an important part in increasing efficiency, cutting costs, and speeding up production. Directly, they showed how two extra stations could be added to the line without overcrowding. This is where savings have paid off:

• Plant space is used more efficiently.

• Idle time of machines and workers is way down.

• Storage areas are used more completely.

• Material flows more smoothly.

• **Extras**—The Monday-morning quarterbacking sessions also turned up some fringe benefits. Planners of new layouts profit by working out bugs in the old ones. Some unsafe practices that were never noticed on the ground have been corrected. And problems like poor lighting and glare become much easier to correct when they are seen from above.

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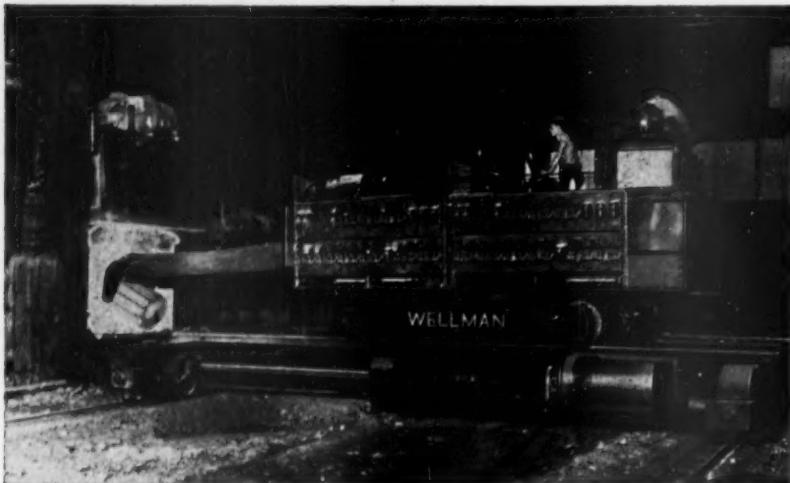


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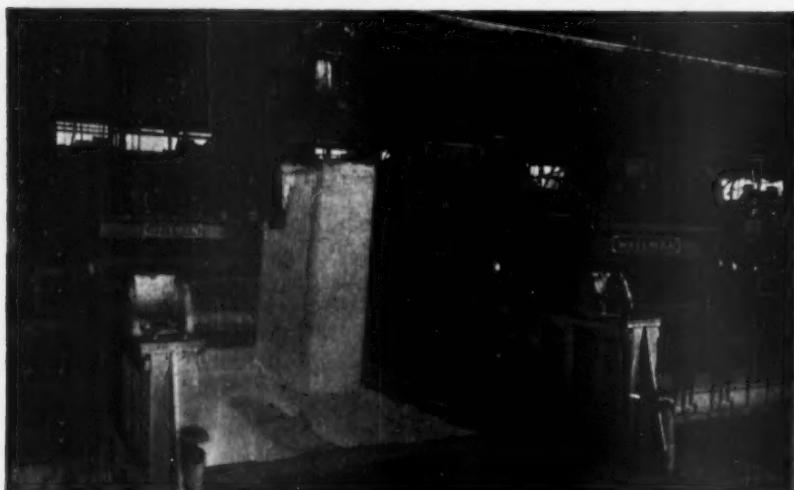


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MATERIALS HANDLING BRIEFS



One man operates this Wellman 10,000-lb. ingot charging and drawing machine. Its tongs grip heavy ingots and place them in reheating furnaces. The speedy operation of Wellman materials handling machines boosts production and cuts costs in steel mills.



White-hot ingot comes out of soaking pit in steel mill ready for rolling. The Wellman Cover Carriage smoothly and quickly opens and closes the pit, minimizing heat losses and saving time. Other Wellman products for steel mills: charging machines, coke pushers, skip hoists, ore bridges, forging manipulators.

• Take advantage of Wellman's half century of experience to help speed your materials handling and cut your costs. The Wellman Engineering Company, 7000 Central Ave., Cleveland 4, Ohio, U.S.A.

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HEAVY MATERIALS HANDLING EQUIPMENT
SPECIAL STEEL MILL MACHINERY
"WILLIAMS" CLAMSHELL BUCKETS
MECHANICAL GAS PRODUCERS
"ANKER-HOLTH" AIR AND HYDRAULIC CYLINDERS

Using Sea Water...

... to produce power—
as well as fresh water—may
be near at hand if French test
is successful.

Scientists for ages have been trying to find some way to use the ocean as a source of power and of fresh water. From time to time they have come up with techniques that work, but so far no method has been completely practical.

For that reason, scientists, including those at the University of California, are eagerly watching the Ivory Coast of French West Africa. There, at Abidjan, a partly government-owned French corporation, Energie des Mers, is about to test a new method which, according to Engineering News-Record, a McGraw-Hill magazine, brings the age-old dream closer to reality than ever before. If the test is a success, Abidjan may become the site of a \$2.5-million seapower station.

• **Double Duty**—The main consideration of the proposed station is power. But the French scheme has a big by-product—fresh water. That's what makes the project look a little more practical than some earlier ones: The cost may not be prohibitive for, say, a region of meager hydroelectric resources and fuel supplies, if it can use both the power and the fresh water.

That phase of the Abidjan project is also what made the University of California sit up and take notice. Scientists there, foreseeing a possible shortage of water in some parts of the state not too far away, have been studying desalting techniques for years. They say their calculations pretty much coincide with the new French theory.

• **Adapted**—The French project is a variation on the classic work of Georges Claude, a French scientist who did intensive research on Caribbean waters in the late 1920s. He and other scientists were convinced that a tremendous source of power lay in the temperature difference between the water on the surface and in the depths of the tropical seas—if only they could find a practical way of using it. Such projects take time, obviously, and the biggest trouble so far has been financial: Backers tend to lose interest before they get much further than the small pilot plant stage.

The key to the new French scheme is this old principle of physics: Water boils at lower temperatures on a mountain top, say, where atmospheric pressure is low, than it does at sea level, where pressures are much higher. That means that the relatively low heat in surface water on the ocean can produce



Thermostats indicated on the typical floor plan above are Honeywell's dependable T0400. They're connected to new Honeywell Midget Valves which regulate temperature of ceiling panels.

Other features of the Honeywell Customized Temperature Control installation include individual thermostats to control unit heaters in the garage area. A separate summer air cooling system for the corridors is controlled by Honeywell's sensitive Grad-U-Stat.

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Honeywell Customized Temperature Control**

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Once equipped with Honeywell Customized Temperature Control, you'll have an ideal indoor "climate"—and save fuel besides.

And with a complete line of pneumatic, electric and electronic controls to choose from, Honeywell Customized Temperature Control offers you the greatest flexibility in design.

For full facts on Honeywell Customized Temperature Control, call your architect, heating engineer or local Honeywell office. There are 104 Honeywell offices across the nation. Or mail the coupon today.



One thermostat furnishes ideal comfort in smaller apartments. Tenants can regulate to comfort level *they* prefer, get compensating effects of individual thermostat against north winds or winter sun—depending on exposure of apartment.



Two thermostats in larger apartments such as this give tenants zoned comfort, save additional fuel for management. Manager normally turns back both thermostats when tenants leave for cold-weather vacations—thus saving considerable fuel.

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MINNEAPOLIS-HONEYWELL REGULATOR CO.
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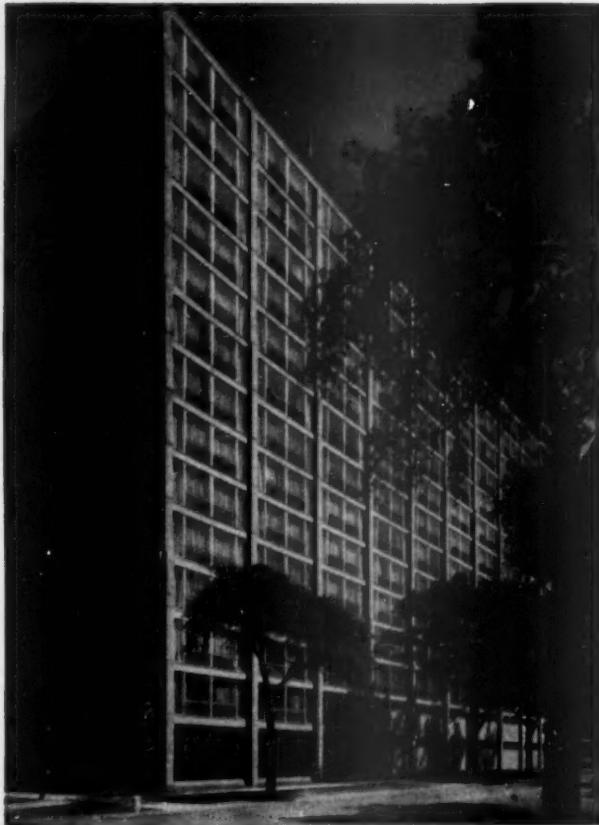
I'm interested in learning more about Honeywell Customized Temperature Control.

Name *(A line for the name of the individual responding to the advertisement.)*

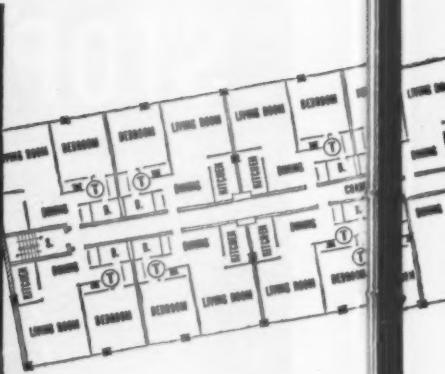
Firm Name *(A line for the name of the company or organization.)*

Address *(A line for the address of the individual or company.)*

City Zone State *(A line for the city, state, and zip code.)*



Architects and engineers for Chicago's 2933 Sheridan Road Apartments were Pace Associates, Chicago. Management of the building is handled by Benjamin E. Sherman & Son, Chicago.



TYPICAL FLOOR PLAN



How Honeywell Customized Temperature Control can help you solve a real problem in new or existing apartment buildings

Special system keeps all tenants comfortable all the time, cuts fuel costs

What can you do to keep tenants from opening windows (thus wasting costly heat) when they think their apartment's overheated? How do you answer a tenant's complaint that "It's too cold up here" when his apartment is far from the boiler? Or for that matter, just how do you satisfy the people who like it 76° and those who insist on 68°—in the same building?

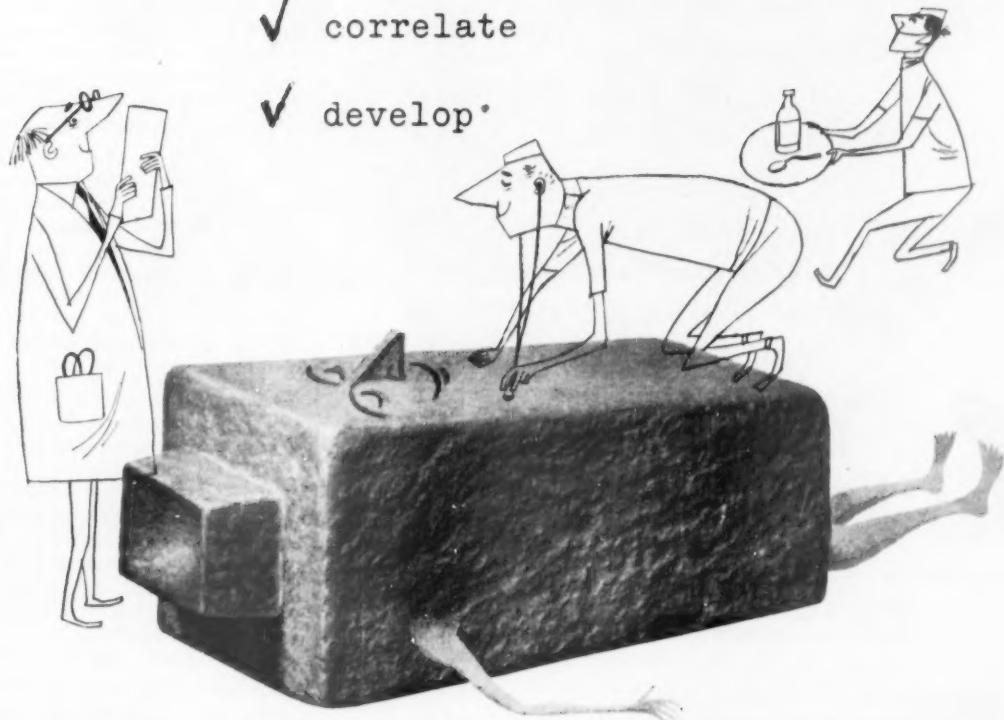
Ever since the first apartment was built, owners and managers have been plagued by such questions. But they need no longer worry.

The way these problems are being met—by Honeywell Customized Temperature Control—in the 2933 Sheridan Road Apartments in Chicago shows why. This installation provides separate thermostats for every apartment—so tenants can select the temperature *they* want.

Here's what a couple of people intimately acquainted with the 2933 Sheridan Road Honeywell Customized Temperature Control installation have to say: Tenant Lee H. Kulp says, "Our rooms are always comfortably warm—but never hot or stuffy. My wife is delighted."

L. H. Sherman, *management associate*, says, "All our tenants find the system very satisfactory. As owners and agents we're especially pleased with the economical fuel consumption."

- ✓ test
- ✓ split
- ✓ observe
- ✓ measure
- ✓ etch
- ✓ analyze
- ✓ correlate
- ✓ develop



Probing into the structure of ingots is typical of the Inland research that pays off in improved steels for you, such as sheets of better drawing quality and fewer surface defects.

These hard-to-please research metallurgists have also come up with such Inland products as faster machining LEDLOY steels, one-coat TI-NAMEL enameling iron sheets, stronger bonding HI-BOND reinforcing bars and many others.

And, we're glad to report, they're still at it!



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Fort Howard supplies a complete line of handsome cabinets to fit all its towels . . . and there's a Fort Howard Towel to fit any folded towel cabinet. For towels that are always available, consistently high quality, and priced right, call your Fort Howard distributor salesman today, or write Fort Howard Paper Company, Green Bay, Wisconsin for full information and samples.

FORT HOWARD PAPER COMPANY, GREEN BAY, WIS.



steam if the pressure is low enough. The steam drives a turbine that produces power to pump the water and create a vacuum. After the steam leaves the turbine, it can be condensed into fresh water at normal temperatures. But if the steam is cooled by cold water drawn from the depths, the vacuum at the exhaust end is more powerful. The greater the temperature difference, then, the better the system works.

• **A Feat**—The system naturally requires huge quantities of water; and, like a hydroelectric plant, the outlay for plant equipment is large. It's no easy job to bring up cold water from the ocean depths without using most of the power supply for pumping. To supply the 7,000-kw plant proposed at Abidjan, the conduit has to be 8 ft. in diameter. Running this pipe out into the rough ocean far enough and deep enough to get water that is cool enough is an engineering feat.

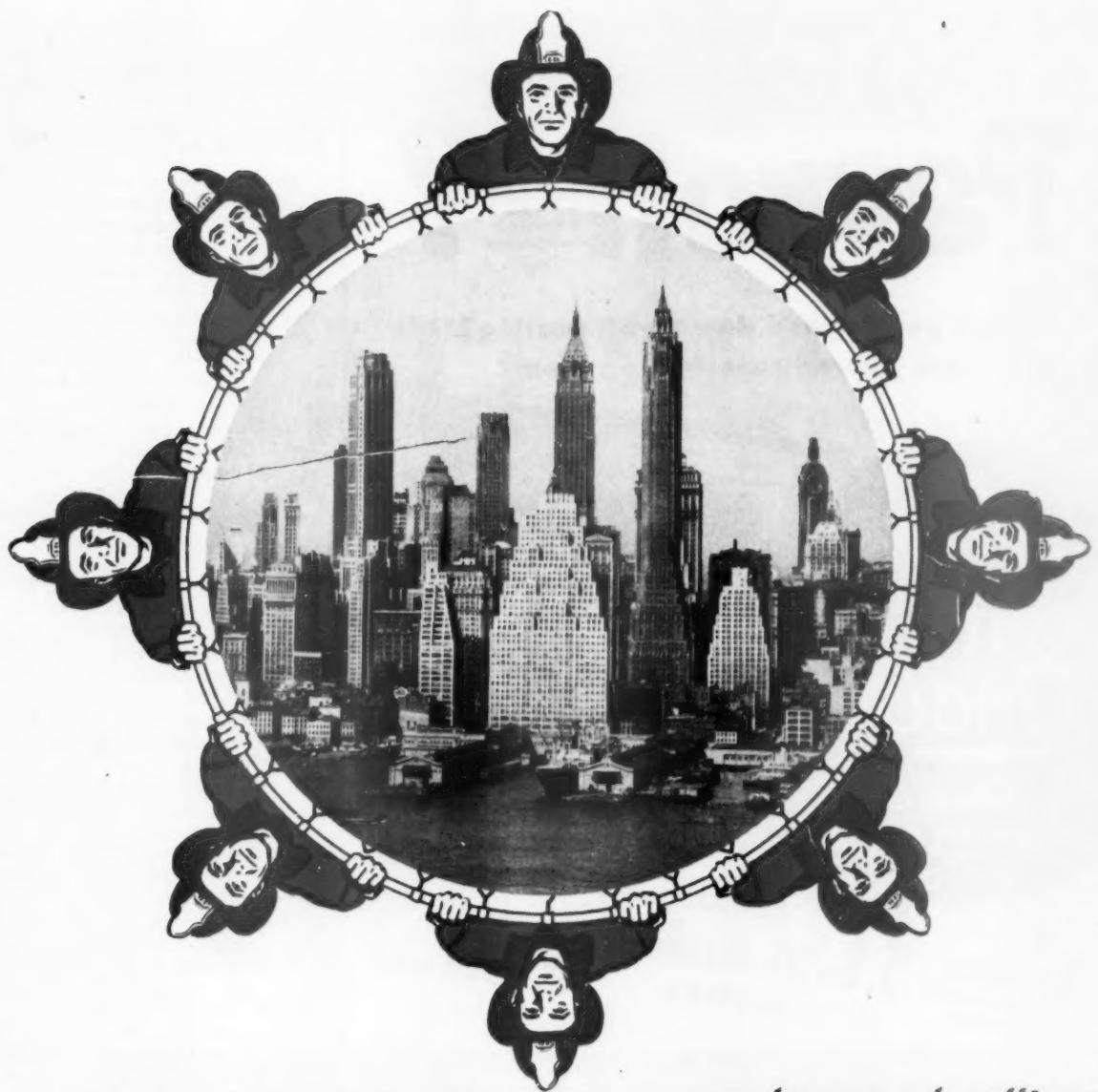
A. Nizery, general director of Energie des Mers, feels he has all of the design problems licked. But he's taking no chances. In 1947 the group tested a float for laying the pipe in rough water of Brest, France, to make sure it could be done. Full-sized equipment was built and operated in France. Industrial quantities of vapor have been produced and condensed at low pressure. Nizery feels now it is just a matter of time—and money—before his seapower plant at Abidjan gets rolling.

• **How It Works**—The engine that Energie des Mers had developed is designed to operate on a 40F temperature difference. Salt water from the warm surface would be pumped into the boiler at about 82F; vapor would flow through the turbine and into the condenser, where it would be cooled by water from the depths at 42F. The entire engine (boiler, turbine, and condenser) would be sealed in a vacuum and the turbogenerator unit will be built within a vacuum casing of reinforced concrete, protected against leakage by a metallic coating or a special plastic coating that the company has been testing.

Energie des Mers has based most of its investigation on a 40F temperature differential. It doubts that power production would pay for itself if the differential were any smaller, although fresh water would.

• **Practical**—The University of California scientists who have been checking into the French project go along with most of the theory. Dean E. W. Howe and Byrn Beorse, however, believe that a plant producing 100,000 gal. of water a day, which Nizery proposes for his full-sized operation, would use more power for pumping than he indicates. This would mean less net power output.

The Californians are now working on



200,000 BUILDINGS SAVED . . . and many a headline!

Remember the good old days when giant fires caused by faulty electric wiring and insulation regularly made newspaper headlines? Remember the *Morro Castle*? After it went up in flames, inspectors uncovered the same old story—the then-standard wax insulation on electrical wiring had spread the fire like a fuse.

Something had to be done, and National Electric engineers did it. They developed a flame-retardant, moisture-resistant insulation called "Safecote" which

was hailed as one of the most important contributions ever made to the electrical industry.

Today, millions of miles of "Safecote," along with newer types of insulation material, give constant protection against fire to thousands of buildings around the world. But buildings that *don't* burn down never make the news.

Pioneering in electrical safety is nothing new to National Electric. Keep that in mind when you specify electrical systems for office or factory.

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design of a pilot plant that would furnish 220 hp. to run pumps to produce 100,000 gal. per day of distilled water. They estimate cost of water at 20¢ per 1,000, not an exorbitant price if the water is assumed to be pure as discharged from the distillation process.

The California research has concentrated on using ocean and river waters. However, some thought has been given to possibly using spent industrial coolants—used water or chemicals. That would eliminate the problems and cost of a deep-sea pipeline. Such a plant is said to be under consideration by the government of Curacao, Netherlands West Indies.

PRODUCTION BRIEFS

Nickel-cadmium batteries may soon replace conventional lead-acid types in military aircraft. Navy's Bureau of Aeronautics has placed a \$1-million order for 2,000 from a French firm. The Air Force is expected to adopt them within the next fiscal year. The bureau reports both types of batteries will be used interchangeably until an American company begins production.

Fused quartz of optical quality will soon be produced in commercial quantities in the United States by Optosil, Inc., of Hillsdale, N. J., a newly formed subsidiary of Hanovia Chemical & Mfg. Co. The material is used in electronic computers, scanners, and other special optical and electronic devices.

Compressed air as a spring for vehicles is gaining acceptance. Last fall General Motors Corp. announced an air bellows system for each wheel of a bus (BW—Oct. 18 '52, p78). Now General Tire & Rubber Co. is introducing an air spring unit for tandem axle trailers. Automatically controlled pressure keeps the vehicle riding at the same height whether empty or fully loaded, eliminates high-frequency vibration.

A tinless can for motor oil, which eliminates the traditional side seam solder composed of an alloy of scarce tin and lead, is now being mass-produced at three plants of American Can Co. Replacing the solder is a thermoplastic cement.

Problem of packaging delicate equipment and instruments can be solved by a fibrous glass cushioning material called Vibraglass. The manufacturer, Glass Fibers, Inc., of Toledo, says it's resilient, incombustible, fungus- and vermin-proof, lightweight, and chemically neutral.

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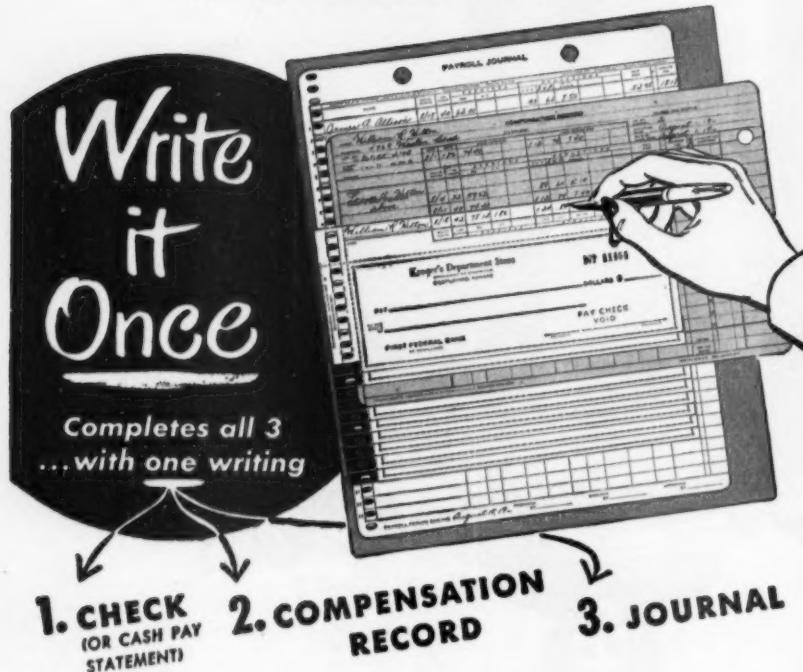
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NEW PRODUCTS

Remote Oil Gauging

The huge storage tanks of the oil industry are like warehouses where products are kept pending sale in one sense, but they're unlike shelves and bins in this way: You can't check them by looking at them. Still, accurate inventory control is as important here as in any other business. An error of only $\frac{1}{8}$ in. in measuring the height of fluid in a 60-ft. diameter tank means a difference of 200 gal. in inventory.

Until a few years ago, a gauger rode a bicycle from tank to tank, climbed on top, and dropped down a tape. He still does in some places. But most companies now use an automatic electrical system that gives readings on a gauge at the base of the tanks or short distances away. The automatic systems, which generally use selsyn motors, become prohibitively expensive for readings at distances beyond about 10,000 ft. because of wire costs and difficulties in keeping the motors in synchronization. Electronic systems used today by a few companies can up this distance about 2½ times.

Recently, Shand & Jurs Co., a pioneer in the remote gauging business, developed a system that has practically no distance limitations. The company has worked out a system of converting depth measurements into electrical impulses, transmitting them over a simple electrical circuit, and re-converting them to dial readings at the other end. It can be applied to any existing system of gauging.

The system has been sold to three oil companies, but as yet nothing has been delivered. Equipment is still in production.

Varioplex, as the new system is called, is limited only by how far you can run a wire. Impulses can be superimposed on existing telephone wire without interfering with steady use of the wire for conversation. Since most firms maintain private wires between headquarters and refineries, this wiring cost would be nil. Impulses can also be transmitted by microwave radio.

The cost of the system depends a lot on whether or not there is an existing wire to the central point where inventory data is wanted. For example, a refinery with 12 identical tanks, which wants to send its data to headquarters 50 mi. away over its private wire, would have to spend about \$7,500 for gauges, transmitter, and receiver. This is competitive with a selsyn system which wouldn't work beyond two miles.

The company will concentrate at first on the oil and petrochemical industries. When these demands have been met,

Tear-proof paper... because it's reinforced with glass!

Yes, it's glass that makes this paper so tough. Glass in fiber form, as pioneered by Owens-Corning Fiberglas Corporation . . . stronger, tougher than any textile fiber known to man!

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Waterproof papers reinforced with Fiberglas yarns have almost unlimited use. In industry

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These tougher, lighter, longer-lasting papers reinforced with Fiberglas yarns cost no more than ordinary reinforced papers. For ideas on how to use them profitably in *your* business, contact any of the paper manufacturers shown below . . . or write direct to Owens-Corning Fiberglas in New York.

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Fiberglas yarns are uniform in strength, have no weak spots which can break down during shipment. Means stronger, safer wrappings for textiles, furniture, machinery and similar costly products.



Thinner, lighter Fiberglas yarns make possible smoother, less bulky papers. Easier to use, these papers are ideal for protecting large or odd-shaped articles—make excellent freight car shroudings, box liners, metal wraps.

These leading manufacturers of reinforced papers all use Fiberglas yarns in their products

Adams Paper Converting Co., Manistee, Michigan
Albemarle Paper Co., Richmond, Virginia
American Reinforced Paper Co., Attleboro, Massachusetts
Angier Corporation, Framingham, Massachusetts
Arkell Safety Bag Company, New York, New York
Atlantic Gummmed Paper Co., Brooklyn, New York
Central Paper Co., Muskegon, Michigan
Cromwell Paper Co., Chicago, Illinois
Edgewater Paper Co., Menasha, Wisconsin
Gaylord Container Corp., St. Louis, Missouri
Glas-Kraft, Inc., Lonsdale, Rhode Island
Hersey Paper Lining Co., Melrose, Massachusetts
Keystone Roofing Mfg. Co., York, Pennsylvania
Mountain Waterproof Paper Co., Worcester, Massachusetts
National Waterproof Papers, Inc., Camden, New Jersey
Orchard Paper Co., St. Louis, Missouri
Prairie State Paper Co., Joliet, Illinois
W. Ralston & Co., Inc., Old Bridge, New Jersey
Rexford Paper Co., Milwaukee, Wisconsin
Ruberoil Company, New York, New York
Simplex Paper Co., Adrian, Michigan
Sisalcraft Corp., Chicago, Illinois
H. P. Smith Paper Co., Chicago, Illinois
Southland Paper Converting Co., Los Angeles, California
Specialty Converters, Inc., East Braintree, Massachusetts
Stocker Mfg. Company, Netcong, New Jersey
Thimany Pulp and Paper Co., Kaukauna, Wisconsin
Union Bag & Paper Co., New York, New York
J. J. White Paper Co., Canton Junction, Massachusetts

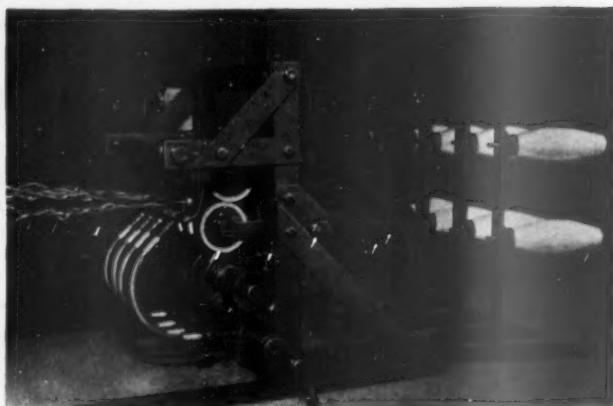
IDEAS FOR INDUSTRY



A phone book would be easier to tear in half than this paper reinforced with thin but amazingly strong Fiberglas yarns.

Available to industry at all times is the know-how and experience gained from 20 years of pioneering with fibrous glass. When applied to reinforced paper problems, for example, this know-how helped develop two important Owens-Corning contributions to industry growth: the air gun process (illustrated on the right) and Fiberglas scrim fabric.

Each has helped bring about marked product improvement—quicker, easier, more economical production—elimination of dependence on imported sources of fiber reinforcements.

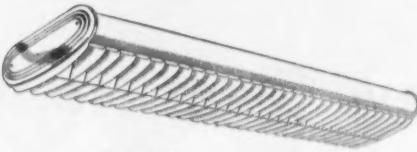


Fiberglas reinforcements can be applied in various ways to meet specific needs. This airgun process distributes yarns in a random pattern to give strength in all directions. Other processes use diamond or straight yarn patterns, or net-like Fiberglas scrim fabric.

Save Lighting Dollars

and enjoy better Light with Sylvania Fluorescent Lamps. Read this money back guarantee.

Try 24 Sylvania Fluorescent Lamps of any popular type. If they don't give more light and maintain color and brightness for a longer time than any other brand, send them back with your Certificate of Assurance and your money will be refunded.



Sylvania Fluorescent Fixtures, too, are completely guaranteed. This covers every Sylvania lamp, starter, and part for an entire year. For full details see the Sylvania Lighting Contractor who displays the emblem at right.



SYLVANIA

Sylvania Electric Products Inc., 1740 Broadway, New York 19, N. Y.

In Canada: Sylvania Electric (Canada) Ltd., University Tower Building, St. Catherine St., Montreal, P. Q.

LIGHTING • RADIO • ELECTRONICS • TELEVISION



Independence Hall is getting a brand-new mall. From his perch atop city hall, William Penn observes the changing scene—new buildings, new industries and...

As Philadelphia forges ahead ... Rome delivers the power

Riding across the Delaware River Bridge, you see a sign that shouts, "Philadelphia—the Electric City" . . . and it speaks the truth.

For here, in the city where Benjamin Franklin discovered this near magical force, electricity is king . . . life's blood to expanding industries, commerce, transportation systems, schools, hospitals and homes.

But to have a useful purpose, electrical energy must be conveyed through high-quality wires and cables, engineered to hundreds of specific applications.

That's why so many Rome Cable products are in evidence here and throughout the nation. Utilities and industries have confidence in Rome. They know its reputation for the thorough research, precise design and quality manufacture.

You, too, will be intrigued by the story of this young independent company's growth and development. Write today for your free copy of "The Story of Rome Cable Corporation."



RoMarine-RoPrene® all-purpose cable combines moisture and heat resistant RoMarine insulation with the RoPrene (Neoprene) sheath. This cable can be installed direct in earth or aerially. Underwriters' approved as Type USE.



ROME CABLE
Corporation
ROME - NEW YORK
Torrance - California

it may enlarge its scope to include other fluid processing operations, water behind storage dams, and wheat in grain elevators. The company is also working on a modification of Varioplex that would transmit temperatures.

• Source: Shand & Jurs Co., 2630 8th St., Berkeley, Calif.

Draftsmen's Cleanup

Few jobs are messier than cleaning pens and other small parts used in drafting. That's why a device put out by Higgins Ink Co. seems likely to make a hit with users of drawing ink.

It's a straight-sided, 6-oz. bottle of fluid pen cleaner with a plastic strainer in the bottom. The strainer is like that used in a coffee percolator turned upside down. Small parts are dropped into the bottle. When they are clean, you just pull up the strainer by means of a center pole and pick up the parts.

In the past, Higgins has turned out its cleaner without the strainer, and it plans to continue to do so with other size bottles. The strainer is not now available separately.

• Source: Higgins Ink Co., Inc., 271 9th St., Brooklyn 15, N. Y.

• Price: About 80¢ for 6-oz. bottle.

NEW PRODUCTS BRIEFS

Verifax printer, a new office machine for rapid reproduction of multiple copies of letter-size papers is being introduced by Eastman Kodak Co., Rochester, N. Y. The company claims it gives three same-size, black-on-white duplicates on plain paper in one minute at a cost of less than 5¢ apiece.

A wrapping machine with a new tight and loose wrapping arrangement has been developed by Hayssen Mfg. Co., Sheboygan, Wis. The new machine folds wrapping paper around the product, which is then carried forward over rubber rollers that can be set to squeeze the package as tightly as necessary.

A 10-qt. pail, permanently stamped with quart markings on the inside, is being introduced by Wheeling Corrugating Co. to eliminate guesswork in many mixing chores around the house and garden. It's made of steel, coated with alloyed zinc.

A marking device for screw machines permits die marking of part numbers, patent numbers, and trademarks on the end face of parts during the machine cycle. Manufacturer is New Method Steel Stamps, Inc., 147 Jos. Campau Ave., Detroit 7, Mich.



You'll find Whiting Cranes in use throughout industry... inside and outside of plants, on production lines, wherever heavy loads must be moved quickly and economically.

Big Muscles for Big Jobs!

Lifting heavy loads for powerhouses, foundries and warehouses... carrying locomotives, steel girders and machinery. Whiting Overhead Cranes do these big jobs better for they are engineered to-the-job and thus provide longer life, greater safety, and lower operating and maintenance costs.

Mechanized materials handling has been Whiting's business for over 60 years. This experience, coupled with advanced engineering developments and complete manufacturing facilities, assures superior crane performance.

Consult Whiting for cranes!

WHITING CORPORATION
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Swenson Equipment for the
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Trackmobile



Car and Locomotive Washers
and other Railroad equipment



Electric Furnaces and
Other Foundry Equipment



Trambeam Overhead
Handling Systems



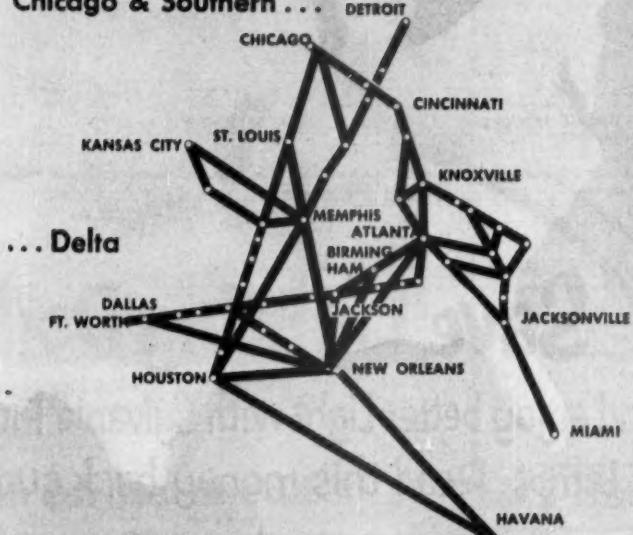
Electric Chain Hoists

THESE WHITING PRODUCTS
ARE INCREASING THE NATION'S
PRODUCTIVE STRENGTH

COMPANIES

When Two Airlines Merge ...

Chicago & Southern ...



A New Giant Hopes to Invade East

Delta hopes impending merger with C&S will strengthen its bid to get a New York route.

Next week Delta Air Lines and Chicago & Southern Air Lines, Inc., are scheduled to march to the altar in what is billed as the biggest merger yet among chiefly domestic lines.

The merger already has the blessing of the Civil Aeronautics Board, former President Truman, and the assorted directors and officials of the two companies.

On Wednesday, both sets of stockholders will vote in special meetings on what is expected to be a routine approval of the move.

The merger will bring a shakeup in the rankings of major domestic scheduled airlines. Using the yardstick of scheduled revenue passenger miles, Delta held eighth place in 1952 (442,604,584), with C&S tagging along in the 11th spot with 239,324,000. Other standard yardsticks give substantially the same results.

• **Up to Sixth**—The new line—it will operate as Delta-C&S Air Lines, but will have the corporate moniker of Delta

Air Lines, Inc.—will climb to sixth place (if the 1952 relative standings hold true). The combined lines show scheduled revenue passenger miles of 681,924,584, well behind the Big Four—American Airlines, TWA, United Air Lines, and Eastern Air Lines—but within sniffing distance of Northwest Airlines' fifth-place 720-million.

You can even push Delta-C&S up to fifth place by using scheduled passengers flown as the gauge. The map above shows the network of lines, stressing coverage of the fast-developing South and Southwest, that are going to serve those passengers under the new setup.

Terms of the merger indicate that it is strictly Delta that is doing the absorbing. C&S stockholders will receive \$10,695,846 in 5 1/2% 20-year convertible subordinated debentures in exchange for their 509,326 shares. That's a ratio of \$21 in debentures for each C&S share.

The debentures can be converted

into Delta common at any time until maturity, at a rate of one share of stock for each \$35. The debentures are callable at a 3% premium for the first two years, 2% in the third year, 1% for the fourth, and at par thereafter.

• **The Brass**—C. E. Woolman, president and general manager of Delta and the man who raised the thriving line from a pup, will hold similar positions in the merged organization. Of C&S' top brass, board chairman Carlton Putnam will hold the same title in the new company. President S. A. Stewart will become executive vice-president of Delta-C&S.

• **Top Dog**—Of the two lines, Delta is considered the stronger as well as the larger. Under Woolman's canny direction it has grown from a pioneer crop-dusting outfit in 1925 to a thriving airline that has graduated from the air mail subsidy category and flies on its own financial wings.

In fiscal 1952, Delta showed a net income of \$1,650,000, which translated into \$2.75 per share, of which \$1.25 came through in the form of dividends. For the last six months of 1952 (which fall in fiscal 1953), income was much

Mataloy . . .

... is setting new sales records every month. It's a gamble that paid off for a promotion-minded Texan.

Last April, Robert E. Olson of San Antonio wildcatted \$12 in newspaper classified ads for Mataloy, a gasoline additive that allegedly gives the effect of a \$40 ring and valve job for \$6 a package. In the entire month, Olson sold 25 packages—about \$150 worth.

Last month, Olson's advertising bill was up around \$4,000, plus an equal amount on direct mail. And his sales topped \$110,000.

That's fast growth for any company—even in Texas.

• **Out of the Woods**—Olson used to be a lumber importer in San Antonio. He brought the various kinds of wood in from Mexico. As import restrictions got tougher, he began looking around for another line to sell. He put ads in newspapers for ideas he could promote in the Southwest.

Out of more than 500 responses to his ad, Olson was most intrigued by Mataloy. He tried the stuff himself, decided that it worked. As a starter, he took the San Antonio dealership, then expanded statewide, then became distributor for the Southwest and, finally, for the whole country.

Sales were slow out of all proportion to this optimism—perhaps not unnaturally with such an improbable sounding product. Early last year, Robert Deere, a California chemical engineer who invented Mataloy, offered to sell Olson the whole business. Olson bought.

Actually, about all Olson paid for was the formula of nine different metals that make up tablets of Mataloy. The production equipment is so simple that it's installed in Olson's office.

• **How It Works**—The metal tablets slosh around in the gas tank of a car, giving off tiny particles that hang in colloidal suspension, much like the lead in gasoline. Theory is that, in the combustion chamber, this "dust" melts, first dissolving the carbon and then plating the worn parts of the valves and piston rings. Compression and gas and oil mileage are supposed to be improved.

• **Skepticism**—Olson is prepared for skepticism and gets it. He attributes his phenomenal rise in sales volume to steady plugging through advertising in newspapers and national magazines—and to the word-of-mouth advertising he gets from customers who bought to scoff. Some of his once-skeptical buyers have become his most active distributors.

M. & St. L. and Johnny Careful Team up to Hit the PS Bulls-Eye

Teaming with Johnny Careful, the Minneapolis & St. Louis Railway and its Freight Shippers (more of them every year) shoot closer and closer to the Bull's-Eye of Perfect Shipping.

Each April, America celebrates Perfect Shipping Month and takes stock of progress. But, every month the year round, shippers and the workers who pack, label, load and unload freight do better jobs in reducing loss and damage.

The Minneapolis & St. Louis Railway and all the other roads, which transport most of the country's freight, play a big part in Perfect Shipping. Shippers alone can't do the whole PS job and the railroads, year after year, contribute greater efficiency. They provide better cars, locomotives, tracks, yards, loading facilities and everything else that makes for

Perfect Shipping

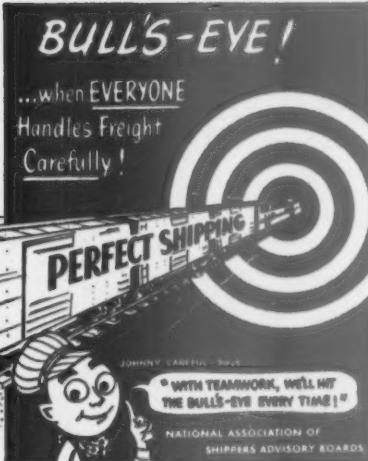
In the Midwest, a leader always in the Perfect Shipping parade is the M. & St. L., which observes Perfect Shipping Month 12 times a year for

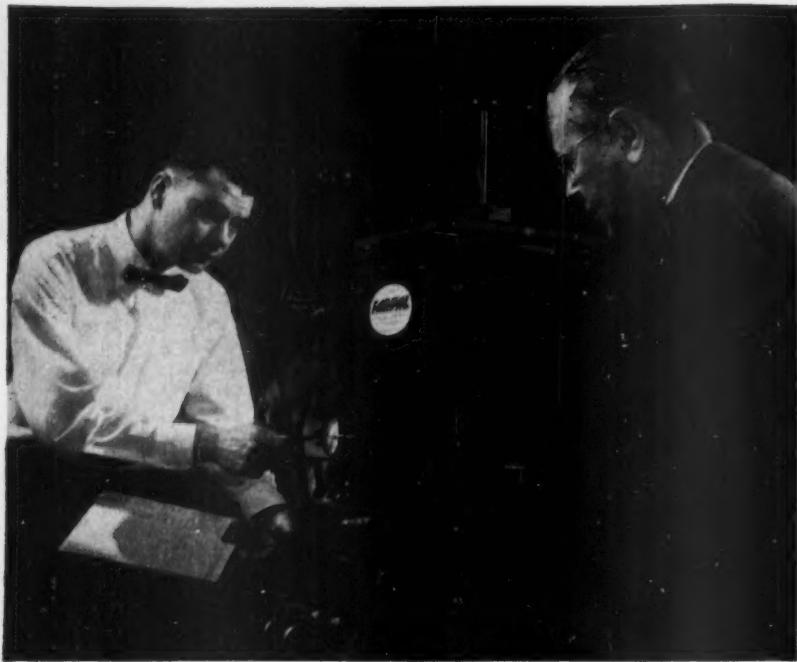
Finer Faster Freight Service

- To Shippers and Receivers
- To Connecting Railroads

The MINNEAPOLIS & ST. LOUIS Railway

TRAFFIC OFFICES IN 36 KEY CITIES





TIME-STUDY MAN BRIEFS THE PRESIDENT

"Our analysis shows Farval has saved us \$3779"

IN a midwestern breakfast cereal plant, the time-study man ran a lubrication check on twenty flaking mills. Ten were oiled by hand, the other ten by a Farval Centralized Lubrication System.

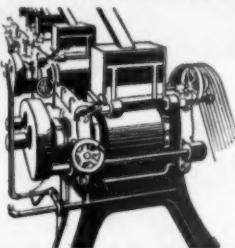
"In 15 months, lubrication of our hand-oiled mills consumed 2,340 hours. Bearing failures were frequent. In contrast, the ten Farvalized mills ran without a bearing failure, saved us \$2,925 in hand-oiling labor and \$854 in power. The power savings alone paid for the entire Farval system."

Result of this experience: Farval went on other equipment.

Farval is the Dualine system of centralized lubrication that hydraulically delivers oil or grease, exactly measured, to each individual bearing, as often as desired. Today Farval systems protect millions of industrial bearings throughout the world.

FREE LUBRICATION SURVEY—Without obligation, let us send one of our lubrication engineers to inspect your plant equipment and present a written

analysis of what Farval can do for you. The savings possible will surprise you! Just mail the coupon or write us a note.



KEYS TO ADEQUATE LUBRICATION—

Wherever you see the sign of Farval—the familiar valve manifolds, dual lubricant lines and central pumping station—you know a machine is being properly lubricated.

Above: Farval-equipped flaking mills discussed at left. At top—time study man is demonstrating how a Farval automatic pumping station works. Adequate lubrication reduces bearing friction, which lowers consumption of power to run the mills. Farval handles either oil or grease, is available with both manual and automatic pumping systems. *Farval is an affiliate of The Cleveland Worm & Gear Co. Manufacturers of industrial worm gearing.*

The Farval Corporation, 3284c East 80th Street, Cleveland 4, Ohio.
Send Farval Bulletin 25 and details of your free lubrication survey.

Name _____
Title _____
Company _____
Street _____
City _____ State _____



gaudier, but the figures included one-shot items such as the sale of equipment.

C&S, too, showed a profit for calendar 1952. Net income was \$1,339,000, an earning of \$2.63 per share with dividends of 75¢. However, C&S is still under the sheltering wing of air mail subsidy, receiving \$1.19 per ton mile for domestic mail in 1952, compared with the nonsubsidy 53¢ received by Delta. It has been said that the subsidy accounted for a very large part of the C&S net. It is also reported that CAB will yank away this crutch by extending the 53¢ Delta rate to the combined operation.

• **What's Good**—As to the advantages of the merger, they seem to lie largely in the airline axiom that two can live cheaper than one. Such savings arise from a multitude of factors: pooling of equipment, terminals, servicing installations, and administrative facilities; more attractive routings; greater financial strength, permitting the purchase of the most efficient equipment.

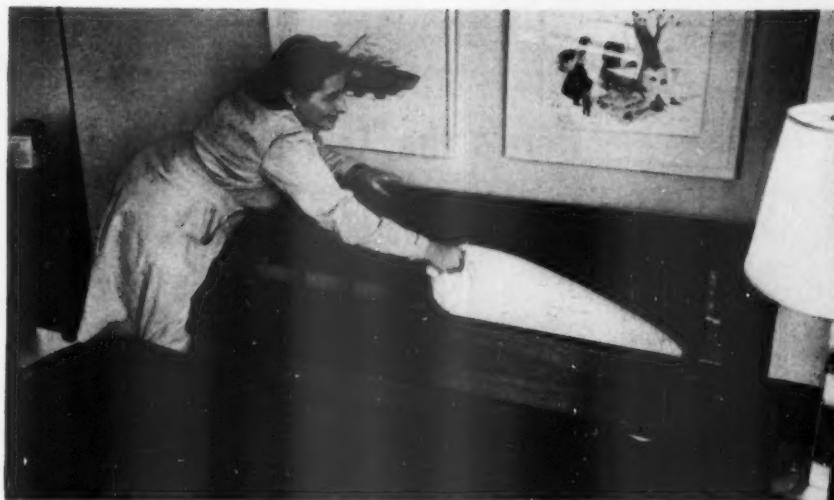
The equipment picture on the Delta-C&S merger depends a lot on where you stand. Outsiders have described the fleet that C&S is bringing to the nuptials as a motley one, which will provide Woolman with many headaches arising from over-diversity. On the other hand, officials of both lines say that they have been looking toward the merger for 17 years, and that they have consulted one another to synchronize procurement.

In this direction, it is true that each line has ordered 10 new Convair 340s, and that each operates a substantial number of DC-3s.

• **Line to New York**—One possible advantage from the merger falls into the category of intangibles. Some people argue that its absorption of C&S puts Delta in a stronger position to achieve its greatest ambition of all: CAB permission to operate between Columbia, S. C., and New York, along with a merger with New England's Northeast Airlines (BW—Feb. 9 '52, p. 25).

The industry believes that it is the New York run that Delta really wants; it would just take little Northeast to put over the deal. In any case Delta's application for the Northeast merger (which is made dependent on the granting of the New York run) was made to CAB long before the line asked to marry C&S.

However, CAB came through with quick permission for the C&S deal, while the dates haven't been set even for the preliminary maneuverings on the Northeast merger. And you can find a lot of people ready to bet that the permission never will be granted. Implacably opposed to it is Capt. Eddie Rickenbacker, president of Eastern Air Lines.



ROOMS convert from bedrooms to studios by dint of sleight-of-hand on the bed.



AIR CONDITIONING adjusts to taste.



PHONE BOOTHS have comfortable chairs.



ESCALATOR takes guests from taxi entrance straight to lobby registration desk.

Though Big



achieved through abundance of glass.

As the average company goes through the years, it gathers a store of ideas for improving its plant and its way of doing business. Some of these it incorporates piecemeal into its operation. It fits them in as best it can, patching and compromising as the situation dictates. The result may be satisfactory, but generally it isn't the best that can be hoped for.

Every now and then, though—maybe only once in a lifetime—a company gets a chance to make an entirely fresh start. When that happens, it can build all the new ideas into its business from the beginning, without patchwork and with a minimum of compromise. Such has been the happy lot of Hotels Statler Co., Inc.

The shiny new Statler Center in Los Angeles (pictures), Statler thinks, is just about everything that a modern hotel ought to be.

• **Opportunity**—When Statler started

to build the hotel, the company was aiming at two goals: efficiency and space. It wanted the hotel's machinery to run smoothly and as much behind the scenes as possible, and it wanted its guests to have a sense of lavish, uncluttered spaciousness. By spending \$25-million (actually a fairly reasonable figure) it managed to achieve both ends.

The Los Angeles location was icing on the cake. Not only was the city in sore need of a new hotel, but it offered Statler a ready-made opportunity to try out new ideas. Los Angeles, influenced heavily by Hollywood and by the modern trend in home styling dubbed "Western," seemed like an almost ideal location in which to go whole hog on modern design.

• **All Things**—The result of this thinking is a huge building full of big, airy halls and modernistic trimmings. It tries to be all things to all men. It has rooms for 1,275 guests, and the usual



THE \$25-MILLION COLOSSUS of Hotels Statler Co. is Los Angeles' new landmark.



LUGGAGE goes into hotel by conveyer.



SERVICE corridors speed operating traffic.

Statler Center: How to Be Efficient



SPACIOUSNESS is the design keynote of the Statler. It has a big, lush garden.



LIGHT, AIRY character of interior is



Thousands of steels and steel products now bear the Republic name.

How many do you know?



ENDURO STAINLESS AND HEAT-RESISTING STEELS—A complete "family" of some forty different steels—resistant to rust and corrosion, resistant to heat, strong and tough, resistant to most acids and alkalies, inert to food products, easy to clean, readily fabricated—and with distinctive lustrous beauty.



FARM FENCE AND POSTS—Woven wire farm fence and barbed wire in all popular styles—strong and weather-resistant. Steel fence posts and bale ties—also wire and wire rods for manufacturing purposes.

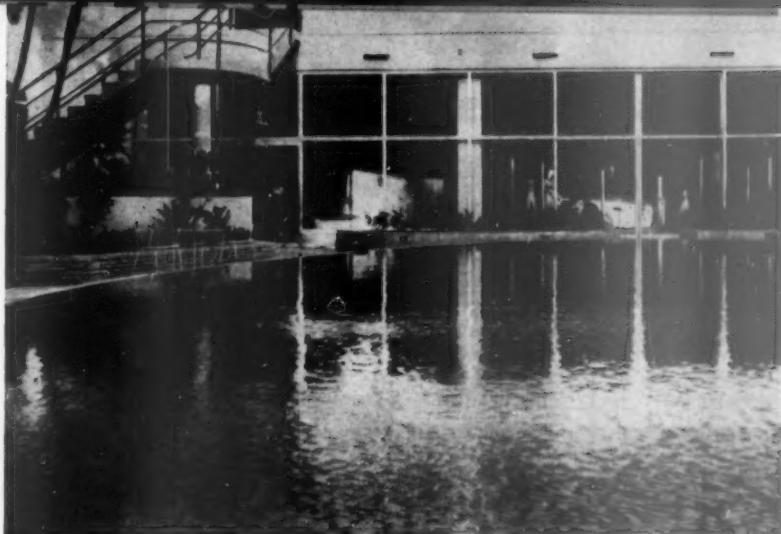


MILES STEEL CONTAINERS—A full line of steel pails, barrels and drums in all standard styles, and in sizes up to 55-gallon capacity. In carbon and stainless steels—plain, painted or decorated.

* * *

Republic Steel Today:

ore mines here and abroad; lake and ocean-going ships; coal mines; furnaces and huge steel mills, North and South; steel fabricating plants across the Nation and in Canada; sales offices in principal cities; PLUS 70,000 men and women working together to produce steels and steel products to help build and protect a stronger America. Republic Steel Corporation, General Offices, Cleveland 1, Ohio.



POOL is not for swimming. It's for decoration, helps give feeling of spaciousness.

facilities for making those guests happy—but that's only one phase of its life. It can double as a center for meetings and conventions; it has meeting halls, big and small, for over 3,000 people. It's also a gathering place for the general public—a place to meet for lunch or dinner. And its Terrace Room is fast becoming one of Los Angeles' most popular nightclubs.

In addition, there's a 13-story office building with three levels of shops and a three-level, 500-car basement garage.

• **Efficiency**—With all those things going on, and on such a big scale, you have a setup that's charged with potential confusion—also on a big scale. Statler designed its hotel with just that problem in mind. It arranged the building, and the operating machinery, in such a way that the various phases of it can easily avoid tripping over each other's feet.

Take the kitchen and dining room combination, for instance. Statler built the dining rooms around the kitchens, so that each kitchen opens directly into the rooms it serves. As a result, waiters don't have to run up and down long corridors or through other parts of the hotel. As another result, there are only two kitchens—compared to the five or ten for most hotels of comparable size.

To make for more efficiency, Statler designed its lobby floors with special attention to simplifying traffic. There are special service corridors for staff members; they don't have to haul luggage and supplies through the guests' parts of the hotel. The trip of the average guest from the hotel entrance to his room has been simplified, too. A guest arriving by car, for instance, can register at a desk in the garage and then go directly to his room without passing through the lobby. This is an attempt on Statler's part to beat the motels at their own game.

• **The Rooms**—Statler hasn't neglected

the rooms themselves; in spite of convention halls, nightclubs, and other profitable phases of a hotel's business, the guest simply paying for a room is still the most important source of revenue.

At the Statler Center, two-thirds of the rooms convert from bedrooms by night to studios by day. There's a 17-in. television set and a radio in every room. There's also a knob on the wall with which the guest can adjust air conditioning to his individual taste.

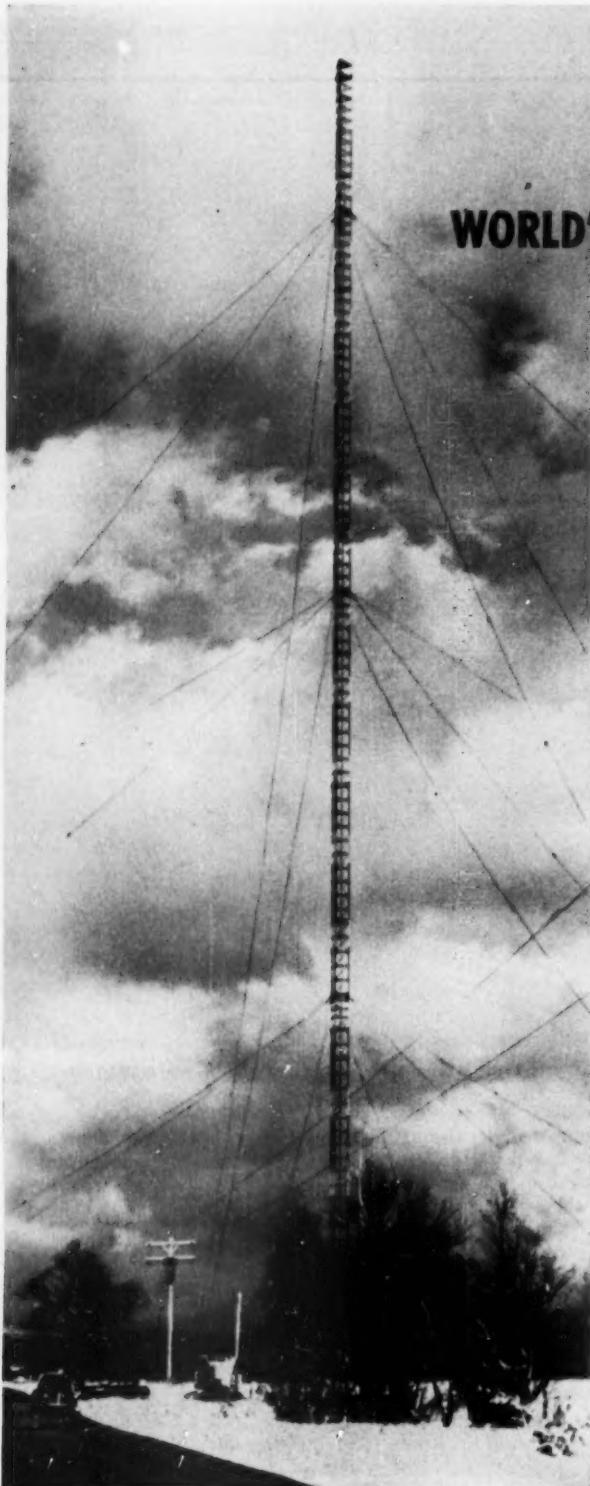
The theme of spaciousness is carried to the rooms, too. Actually, the ceilings are low. But Statler has made a virtue out of a necessity by putting in wide, horizontal windows. The wider expanse brings a sense of space into the room.

• **Savings**—All these extras make the Statler Center look a good deal more expensive than it was. While figuring how to build in new ideas, Statler was also figuring how to shave costs.

One method it decided on was to use concrete in the walls, instead of brick masonry. Concrete is cheaper, and you can make a concrete wall thinner than one of masonry—thus saving space. Statler also used a special light concrete, thus allowing for a lighter supporting framework and smaller foundations.

Another saving is in the air-conditioning setup. At the Statler Center, air is cooled or heated at a central point, then forced through the building under high pressure in 2-in. pipes. This saves the expense of installing radiators and piping grids for steam heating.

• **Breaking It In**—Because of its ultra-modern look, the new Statler was the butt of many jibes during its early weeks of existence. But it's gaining acceptance now. And its manager, J. B. Meacham, is willing to wait a while longer if need be. It generally takes two years, he says, before a new hotel is really broken in.



Here's the "Low-Down" on the WORLD'S SECOND TALLEST STRUCTURE

Higher than Eiffel Tower (984 ft.) . . . higher than the Chrysler Building (1045 ft.) . . . the world's second tallest structure is the 1218-foot U. S. Air Force radio tower near Forestport, N. Y. Still champion is the Empire State Building with its TV antenna (1472 ft.).

This latest entry in man's sky-climbing contest is one of three 1218-foot U.S.A.F. towers engineered and manufactured by Republic's Truscon Steel Division. It was designed to take a sway of seven feet at wind velocities up to 150 miles-per-hour. Before completion the tower was lashed by 120-mile icy gales. The quality of both steel and engineering was proved when this premature test induced a sway of less than four feet in the towering equilateral triangle.

That engineering, that metallurgy, that fabricating technique which were proved a quarter mile up can be applied for you in whatever direction your business happens to lie. They're a primary part of REPUBLIC's service to all customers:

1. to produce thousands of kinds of steels and steel products—the best possible;
2. then to specify an exact recommendation for your particular needs (not just to fill an order for steel);
3. and to stay with *our* product to see that *your* product has been fabricated or processed with the utmost economy and efficiency.

Radio towers are only one sphere in which Republic pioneers—not only in the development, but in design and application of steels.

When your future thinking arrives at the word "steel," why not substitute the word REPUBLIC? It's the modern symbol of

3-Fold Service for Steel Users

REPUBLIC STEEL

WORLD'S WIDEST RANGE OF STEELS AND STEEL PRODUCTS



Satisfaction rests on the carton



Your customers judge by what they receive rather than by what you ship. The best insurance that your product will arrive in the same condition it leaves your plant is a well-constructed shipping container. It is no coincidence that one of America's best-made auto radios travels in one of America's best-made boxes.



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BAG & PAPER CORPORATION

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Western Division Sales Offices: 4545 West Palmer, Chicago 39, Ill. • Executive Offices: Woolworth Bldg., New York 7, N. Y.

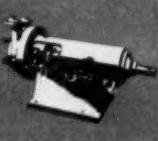
YOUR BUSINESS DEPENDS ON PUMPS



VERTICAL
DEEP WELL TURBINE
PUMPS FOR
WATER SUPPLY



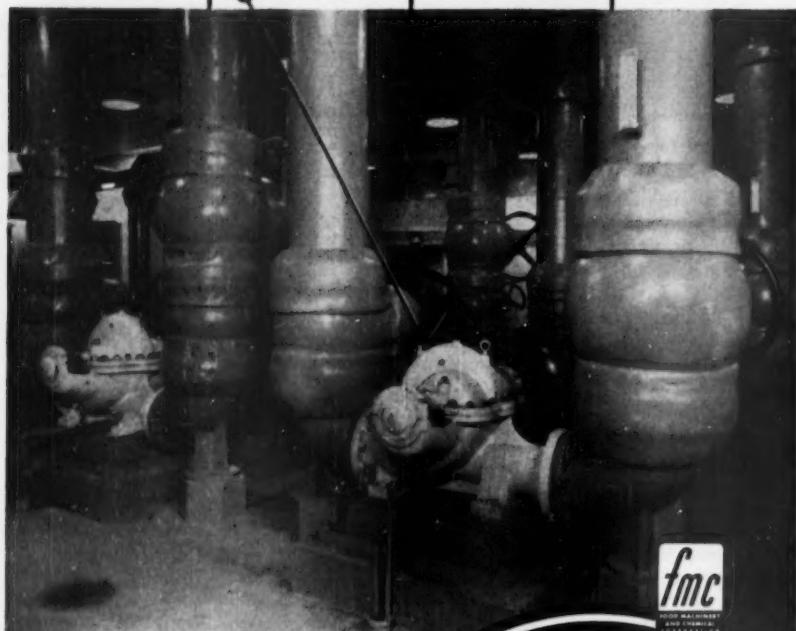
HORIZONTAL
PUMPS FOR LIQUID
TRANSFER AND
CIRCULATION



PROCESS PUMPS
FOR CHEMICALS
AND
HYDRO CARBONS



WATER SYSTEMS
AND PUMPS
FOR FARM AND
HOME



ROOM SERVICE at America's Newest Hotel

HOW PEERLESS PUMPS SERVE THE LOS ANGELES STATLER HOTEL WITH HOT & COLD WATER AND AIR-CONDITIONING

American travelers, who now enjoy the entertainment of television and the comfort of air-conditioning in hotel guest rooms, are apt to take for granted the circulation of hot and cold water to each room. But water failure would cause more guest inconvenience than perhaps any other single detail of hotel operation. In America's newest hotel, the modern and magnificent Los Angeles Statler, 9 horizontal, split-

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COMPANY BRIEFS

CAB legal counsel recommended that Colonial Airlines be allowed to merge with National Airlines but not with Eastern Air Lines. The Colonial-Eastern merger had been arranged through exchange of stock (BW-Oct. 4 '52, p36), but a CAB attorney said Eastern had unlawfully acquired a controlling interest in Colonial. Eastern denies this, and Colonial still argues for merger with Eastern.

A new \$25-million blooming mill has been completed by Granite City Steel Co. of Granite City, Ill. It's part of a \$68-million expansion and modernization program that will also include three new open hearth furnaces, 27 new coke ovens, and other units.

Long-Bell Lumber Co. offered to buy 79% of the common stock of Oregon-American Lumber Corp. of Vernonia, Ore. Oregon-American is a subsidiary of Central Coal & Coke Corp. of Kansas City. Its timber lands contain more than 200-million board feet of mature Douglas fir and hemlock.

Directors of Clark Equipment Co. of Buchanan, Mich., will vote next week on purchase of the stock of Ross Carrier Co. of Benton Harbor, Mich. Ross manufactures straddle trucks for handling lumber and pipe, fork-lift trucks, and a line of power shovels and excavating equipment.

Texas Industries, Inc., has bought control of Fort Worth Sand & Gravel Co., Inc., and four associated companies. The new owner now has 28 plants, specializing in lightweight aggregates.

A fertilizer plant to cost nearly \$30-million will be built south of St. Louis by the Mathieson Mississippi Co. That's a new company set up by Mathieson Chemical Co. and Mississippi River Fuel Corp.

Doctors from every country in the Western Hemisphere will meet in Richmond, Va., next week to discuss 75 years of progress in medicine. A. H. Robins Co., Inc., Richmond pharmaceutical house, will pick up the tab. It's a feature of Robins' 75th anniversary. Special guests will be 75-year-old doctors from all the 48 states.

Avery man for himself: Chester W. Anderson quit his job as vice-president and general manager of the retail and mail order divisions of Montgomery Ward & Co. He said board chairman Sewell L. Avery refused to give his executives enough authority.

TRANSPORTATION

Jet Transports: Why U.S. Holds Back



COMET made in Britain is already on regular commercial flights while . . .



BOEING B-52 jet bomber is closest thing U.S. has to transports planned.



VICKERS VISCOUNT, a turboprop, strengthens Britain's lead.

Three years ago American plane manufacturers seemed on the verge of turning out a jet transport. An official of Lockheed Aircraft Corp. said the company had designs shaken down to the point where they were arguing over the color of the upholstery. Douglas Aircraft Co. was far enough along, design-wise, to have integrated its projected jet transport right into its standard numbering system, calling it the DC-8.

But the further along the engineers got on design, the more the nonengineering aviation executives, in both the factories and the airlines, got bogged down in the financial and technical obstacles to getting the jet transport off the drawing board.

As a result, the American-built jet transport and regular scheduling of jets on domestic airlines are receding further and further into the future. Today, the average aviation executive will tell you that U.S. airlines will be flying their first U.S.-built jets by 1958, that all the major domestic airlines will be operating competitive jet schedules by 1960. But he won't say even that with so much conviction as he would have six or nine months ago.

• **British Lead**—In the meantime, the first models of the British-made de Havilland Comet (top picture) are flying regular schedules between London and Johannesburg, Singapore, and Tokyo. The more advanced Comet II is now in production and will be flying next year; more than 25 are on order. And in 1956, de Havilland expects to start deliveries on the Comet III. Pan American World Airways has ordered three Comet III's, and has an option on seven more.

The British also have a long lead in turboprop transports. The Vickers Viscount (bottom picture) is already in production; the second Bristol Britannia prototype will be flown this year.

• **American Future**—Every day, the British lead in commercial jet planes seems to be getting longer and longer. It's getting to be a real question whether the U.S. manufacturers, spurred by this foreign competition, will redouble their efforts to catch up or whether, held back by the obstacles involved and by their preoccupation with military planes, they will let the British take over the market almost by default. Most U.S. aviation executives insist they'll be ready in time.

I. Boeing's Baby

Farthest along today among U.S. manufacturers is a latecomer to the

Gauze Today and Gone Tomorrow!



It looks like ordinary surgical gauze. And it acts like ordinary surgical gauze—with one important difference. When left inside the body after an operation, it does its work of stopping the flow of blood, and then it disappears, being absorbed into the body tissues.

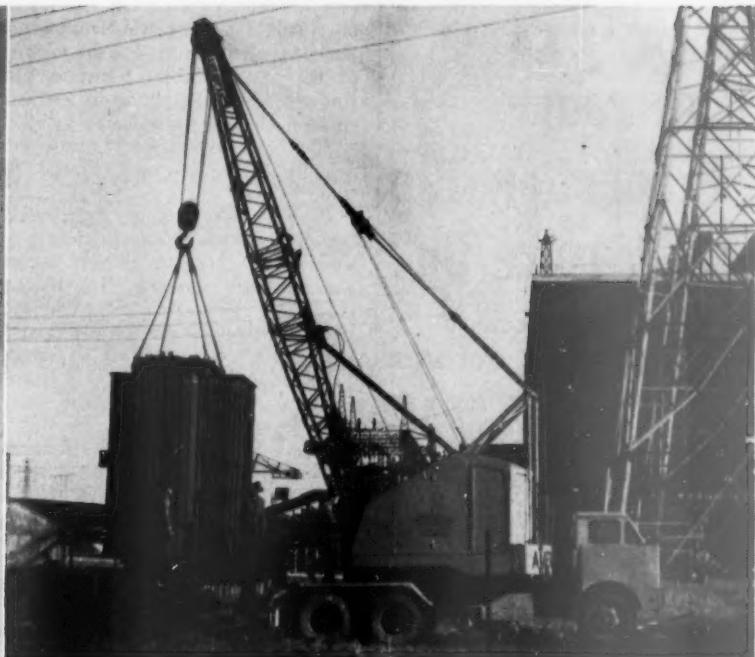
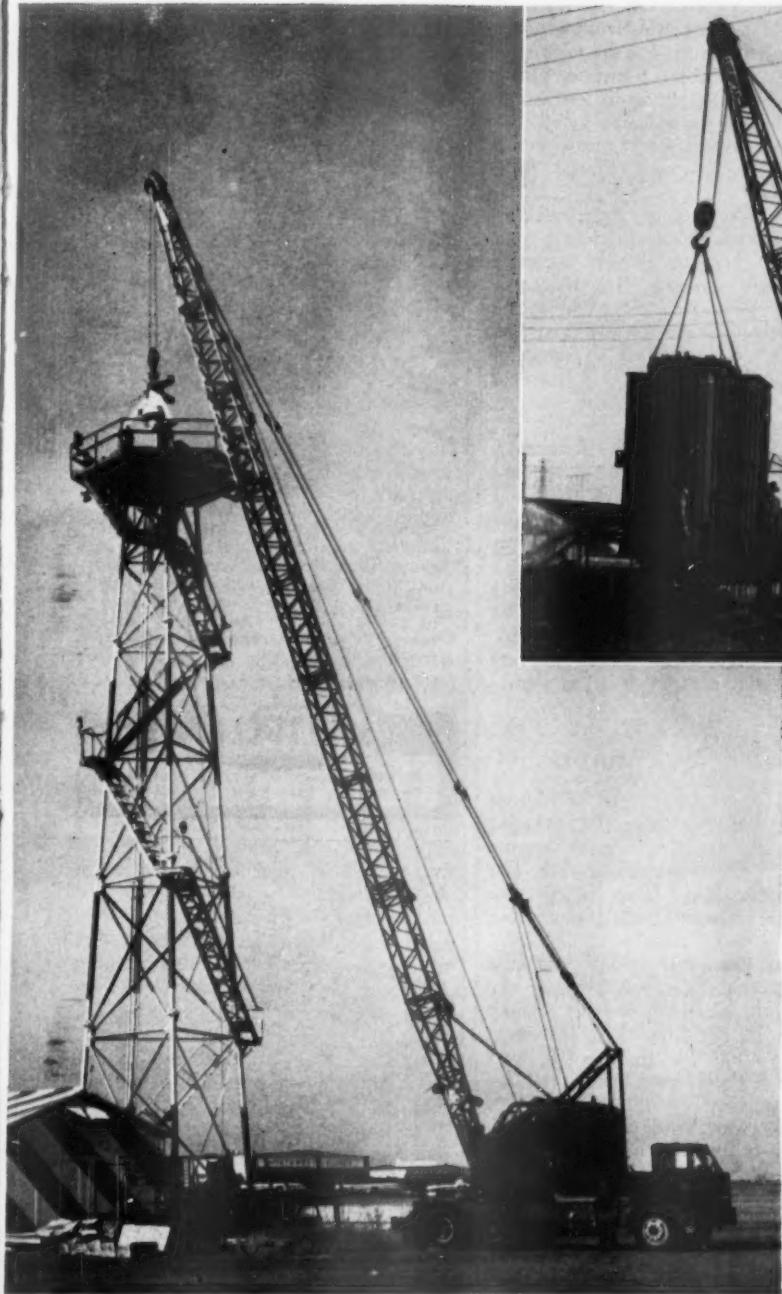
This new dressing, made from oxidized cellulose, is creating surgical history. Reports tell how it reduces post-operative shock by making dreaded reopenings of the incision unnecessary. They tell of lessened pain, of quicker healings, and shortened hospital time. With this new dressing new and simplified surgical procedures are made possible.

Packaged under various trade names by surgical dressing manufacturers, oxidized cellulose dressing is a development that can be directly traced to the work of EASTMAN research chemists. It is a typical result of that special EASTMAN know-how in cellulose chemistry which serves mankind in so many ways. This know-how is at your service. A technical representative will be glad to call.

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Sales representative for TENNESSEE EASTMAN COMPANY, division of EASTMAN KODAK COMPANY



Power to spare. To pick up this un-needed transformer at a generating plant, swing it and place it on a flatcar, contractor Charles E. Knappen of South Bend, Indiana needed a truck crane he could *trust*. This was a capacity load; and the stakes were high. So Knappen used his American 375 Truck Crane, swung the valuable load aboard without a scratch, and proved his own statement: "If American Cranes are as good as American hoists and derricks, they must be the best."

New radar surveillance. Radar scanning towers, like this one at Wold-Chamberlain Airport, Minneapolis-St. Paul, must of course be built high, to "see" over nearby obstructions. But placing the 15-foot antenna atop the tower was an easy reach for the 100-foot boom of this American 375 Truck Crane. The job was handled by Henry Lambert Trucking Co. of Minneapolis.

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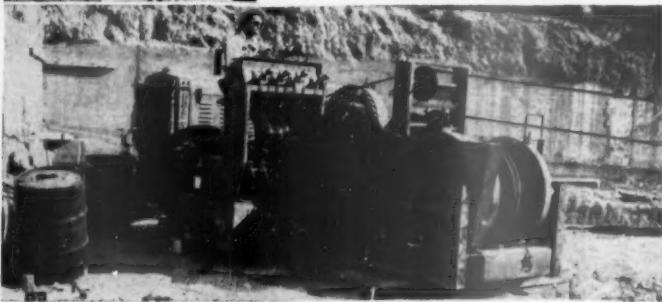
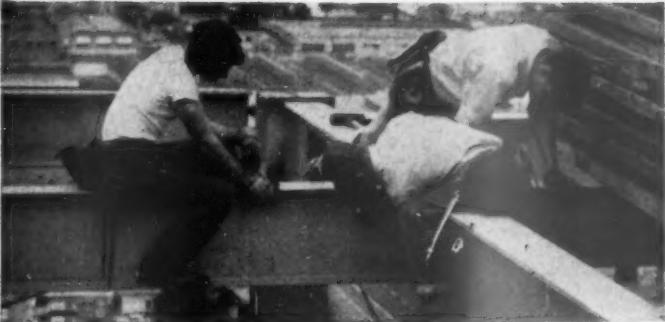
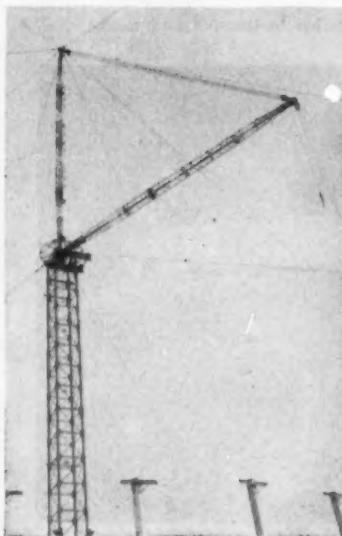
Pictures from Industry

These are excerpts from stories in the current issue of American Hoist & Derrick Company's house magazine, the American Crosby Clipper. If your business involves the use of hoists, derricks, locomotive cranes, revolver cranes, Crosby Clips or other equipment in our line, why not let us put your name on the mailing list. Use coupon on right hand page, to start with the current issue.

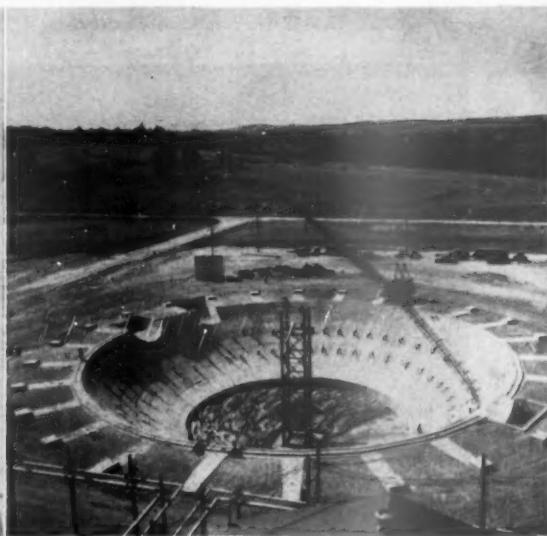


Not a grunt in a carload. To unload rock at Garrison Dam, Peter Kiewit and Sons Co. hustle gondola cars in and out of this elevated car dumper without a switch engine. An American Electric Drum Type Car Puller, and gravity, make the job quick and easy.

Atomic bowl game. This saucer-shaped basin will hold the largest steel sphere ever built—an atomic power plant being constructed at Milton, N.Y. The American Steel Erectors Derrick will assemble the big steel ball plate by plate.



No machine-gun racket. People in offices and stores near the new Fidelity Union Life Building in Dallas were pleasantly surprised as this 20-story structure went up. The usual chatter of riveting was missing—and so was the noise of hammers. Steel framing was bolted and welded. New-type Cofar panels formed the floors. To handle steel and panels, John F. Beasley Const. Co. used an American Guy Derrick with 100-ft. boom, and an American Iron Workers Special Hoist, shown below.



The AMERICAN HOIST line includes: Hoists • Derricks • Locomotive Cranes • Crawler Cranes • Truck Mounted Cranes • Revolver Cranes • Roofers Hoist

Patterson, president of United Air Lines.

III. The Economic Key

It all comes down to this: The airlines will not invest heavily in jets until the cost per passenger mile of operating a jet is substantially lower than that of today's planes.

• **Building**—There are a lot of factors involved in this question of costs. For one thing, the cost of the plane itself will be much higher. Estimates run from \$24-million to \$4-million or more, compared with \$14-million for the DC-7. Two of the reasons for this are the high development cost and the need for more complex and expensive production machinery.

But the higher speed of the jets does tend to cut capital costs in one respect, since their faster turnaround on runs makes fewer planes necessary to handle a given route.

• **Maintenance**—Cost of maintenance is another important factor. "The jet engine today is not as reliable as the reciprocating engine," says ATA's Milton Arnold. "It will require more frequent periods of overhaul and its total operating life will be shorter." New types of jets are being developed, however, whose reliability and life will be better than today's models.

Even today there are compensating factors. Jet engines are much simpler than piston engines, hence easier to maintain and overhaul. And even if a jet engine has to be overhauled every 600 hours while a piston engine can go 1,200 hours, the jet engine covers more miles between overhauls, which cuts the per-mile overhaul cost.

• **Operating**—Most important, however, is actual direct operating cost. The biggest factor here is fuel consumption. Pan Am figures the Comet III will require more than twice as much fuel in terms of pounds per mile as its DC-6Bs—20.2 vs. 8.65. This is partly compensated for by the fact that jet fuel is cheaper, so the actual fuel cost per mile of the Comet will only be 25% higher. But even that is too much.

Furthermore, the difference on a per-hour rather than per-mile basis is very much greater. So any delay in landing will be ruinously expensive.

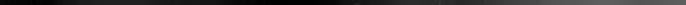
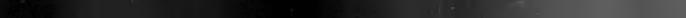
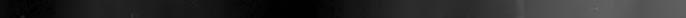
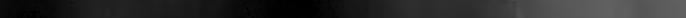
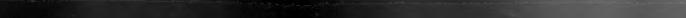
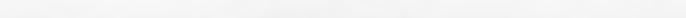
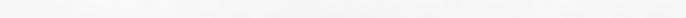
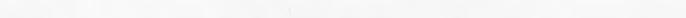
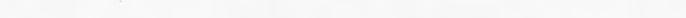
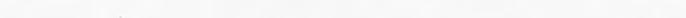
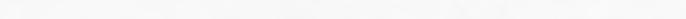
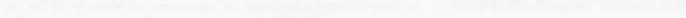
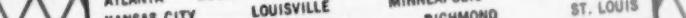
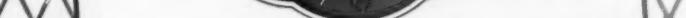
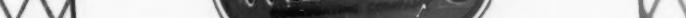
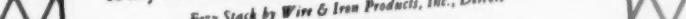
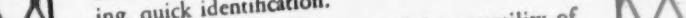
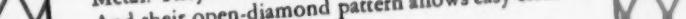
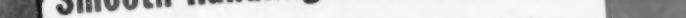
• **Unsolved**—Even if more efficient jet engines are developed, many other problems, both economic and technical, remain to be solved. Among them:

Range. Jets are relatively inefficient at low altitudes. So a jet transport should be able to cruise for long distances at its best altitude for maximum economy. Also, the jet's speed advantage is largely dissipated if it has to land often to refuel.

High landing speed. You can't reverse the pitch of a propeller if you

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race—Boeing Airplane Co. At Boeing's big Plant II, in Seattle, workmen are actually cutting metal for the prototype of the first U.S. jet transport plane. Boeing expects to bring it out some time in the late summer of 1954.

The two early leaders, Lockheed and Douglas, seem to have slowed to a walk.

• **Project X**—Boeing has been working on its prototype for just about a year now. The company is very secretive about the new transport. But this much is known: The four-jet swept-wing plane will have a cruising speed of about 525 mph. at around 40,000 ft., a range of "more than 3,000 mi.," and a passenger capacity of 80 in the luxury version, 120 to 130 in an aircar version.

The transport is likely to bear a strong family resemblance to Boeing's jet bombers, the B-47 and the B-52 (center picture, page 77). But Boeing emphasizes that it will be a completely new plane.

• **Versatile**—In basic design, Boeing says, it will be suitable for any one of three uses: a commercial jet transport, a military jet transport, or a military tanker for aerial refueling of jet bombers.

II. Pressure for Progress

If left alone, most U.S. airlines would much prefer to go on operating for a while with the piston-engine planes with which they're familiar. The large orders they have placed for DC-7s and Super-Constellations prove that.

But the Comet is flying. And that makes all the difference, because the U.S. airlines are going to have to have jets ready by the time their customers start clamoring for them. The very existence of the Comet brings that day a lot closer.

On the other hand, actual competition from other lines using jets is not expected to be a major factor. Trans World Airlines, for instance, is not worried that Pan Am and British Overseas Airways Corp. may be flying jets on the transatlantic run before TWA is ready.

• **Jets' Appeal**—One big reason why the traveling public is going to demand jets is that they are faster. Besides, they are more comfortable to ride in, both in lack of vibration and in less noise.

The airlines agree that these are desirable objectives. But they insist that they still have to wait until there is a reasonable assurance that they won't lose their shirts. If an airline were to order a fleet of jets that proved to be uneconomical to operate, it would be a financial catastrophe. "The next airline to make a wrong guess on a new plane will go bankrupt," says W. A.

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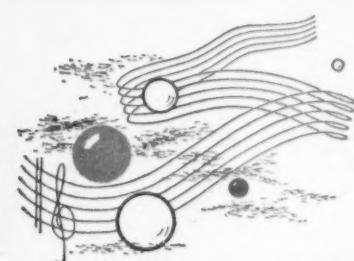


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don't have a propeller. Drag parachutes attached to the tail of the plane, or use of rockets fired in the opposite direction, will probably not be acceptable. But something will have to be done since few airports today have runways long enough to accommodate today's jets.

Outside noise. Jets are noisier than piston-engine planes. Even today, airlines are having trouble with residents near airports about the noise level.

Pressurization. At 40,000 ft., the reliability of the cabin pressurization system is a matter of life and death. United Air Lines, for one, will have no interest in jets until there is absolutely no danger of sudden decompression.

IV. Future Risks

All of these problems, and many others, will have to be ironed out before the jet age arrives. The big difference between the British and the American approach is that the Americans are trying to iron them out on the drawing boards while the British are doing it in practice. Inherently, it would appear, the British method is better. "Specifications, drawings, design studies, and mockups cannot substitute for an airplane that a crew can step into and take off," says John G. Borger, Pan Am's Chief Project Engineer. There has never been a plane fresh off the drawing boards that didn't require extensive debugging.

That means that the first U.S. airlines to buy American-built jets run a big risk of having to ground the planes for extensive changes—as had to be done at one point or another with most of the commercial planes that are flying today, including both the DC-6 and the Constellation.

• Foreign Inroads—Nevertheless, at this point it appears that the U.S. airlines, rather than buy British, plan to wait for the U.S. plane builders to come up with a transport. U.S. plane builders apparently are counting on this; they seem to feel pretty secure against any threat of a Comet invasion of U.S. domestic markets.

This may turn out to be a false security. The British are already selling Comets in the export market to other foreign-flag lines. This is a market that, ever since the war, has been the exclusive property of the U.S. manufacturers. "Every plane the British sell abroad today," says Aviation Week, a McGraw-Hill magazine, "is sold to a customer now operating American transports."

Even if they corral the entire domestic market without a single defection, there's strong doubt that U.S. plane builders could ever make a jet transport pay out its development costs once they have let the export market go by default.

solves help shortage, attracts and keeps full staff

Hand Knit Hosiery Company, Sheboygan, Wis., knitters of Wigwam Socks, found many potential employees resisted jobs simply because they didn't know the sort of opportunities offered.

To explain job opportunities, to enlist an efficient staff, here's how this company used photography

Like most businesses today, the knitters of Wigwam Socks found the getting and keeping of good people on jobs a major problem. Especially since some of the work had names strange to highly desirable personnel—such as looping, box drying, and raveling.

But Hand Knit's industrial relations director knew the potency of photography at work—used photographs to show applicants *what* their work would be, what they'd wear, what their boss looked like. And he showed photographs of other employees, happy at the same jobs. From then on an efficient factory force was more easily lined up—and *kept*.

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Research • Reports • Flow studies • Process charts • Library • Photomicrography, electron-micrography, x-ray diffraction, etc.

Product Design & Development • Styling • Consumer testing • Motion studies • Stress analysis • Performance studies

Engineering • Drawings • Specification sheets • Drawing protection • Pilot radiography

Purchasing • Schedules • Duplicate engineering prints • Specifications • Source information

Production • Time study • Work methods • Legible drawings • Schedules • Process records

Testing & Quality Control • Test set-ups • Standards library • Radiography • Instrument recording

Warehousing & Distribution • Inventory control

• Damage records • Waybill duplicates • Flow layouts • Packing & loading records

Advertising • Advertisements • Booklets • Displays • Dealer promotion • Television

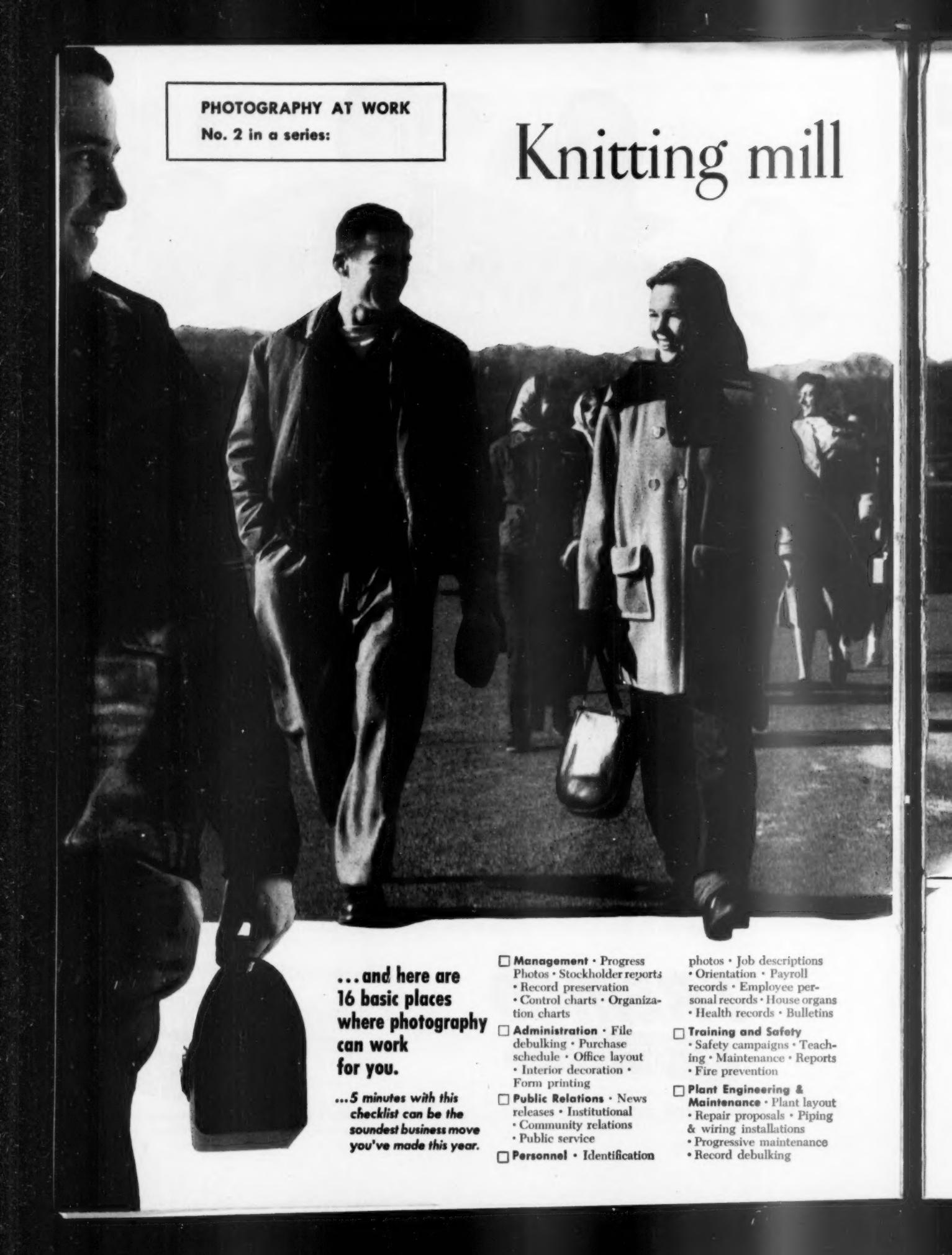
Sales • Portfolios • Dealer helps • Sales talks • Price & delivery information

Service • Manuals • Parts lists • Installation photos • Training helps • Records



Send for free booklet. "Photography at Work" illustrates how photography is working for you. Write for it.

Kodak
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PHOTOGRAPHY AT WORK

No. 2 in a series:

Knitting mill

**...and here are
16 basic places
where photography
can work
for you.**

**...5 minutes with this
checklist can be the
soundest business move
you've made this year.**

Management • Progress

Photos • Stockholder reports
• Record preservation
• Control charts • Organization charts

Administration • File

debulking • Purchase schedule
• Office layout
• Interior decoration • Form printing

Public Relations • News

releases • Institutional
• Community relations
• Public service

Personnel • Identification

photos • Job descriptions

• Orientation • Payroll records • Employee personal records • House organs • Health records • Bulletins

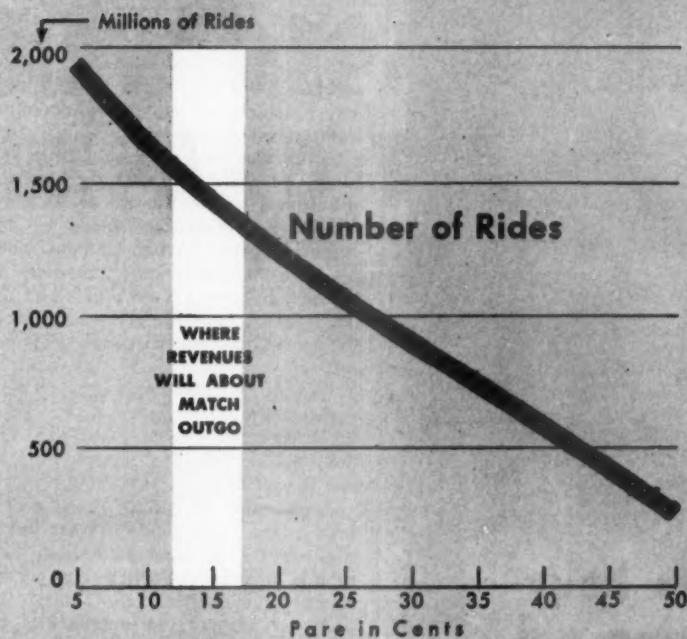
Training and Safety

• Safety campaigns • Teaching • Maintenance • Reports • Fire prevention

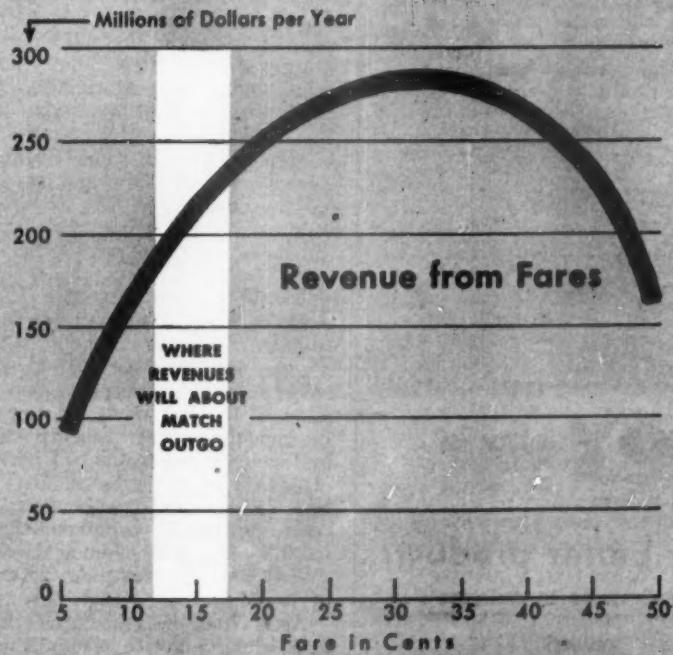
Plant Engineering & Maintenance • Plant layout

• Repair proposals • Piping & wiring installations
• Progressive maintenance
• Record debulking

How Riders Would Drop Off as Fares Rise

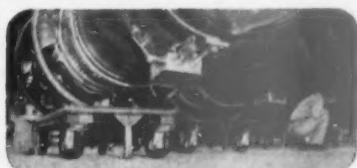


How Revenues Would Fall as Fares Rise



Moving furniture?

Make it easy for yourself—just attach Bassick Rubber-Cushion Glides and see how easily any piece of furniture slides over floors and rugs without scratching. They're *quiet!* Live rubber cushion in a hardened and polished flat steel base absorbs shocks. The highest quality glides... inexpensive, easy to apply. Ask for Bassick rubber-cushion glides at your hardware store.



...or a jet engine?

Bassick also makes moving easier for industry. General Electric uses Bassick "Floating-Hub" Casters to move its famous J-47-GE-17 jet engines. Built-in shock absorbers cushion this costly cargo against damaging shocks. You, too, can reduce "the Reducible 30%" (materials-handling costs) with Bassick industrial casters that keep production rolling smoothly. Check your Bassick industrial distributor—he has the caster you need.

THE BASSICK COMPANY, Bridgeport 2, Conn. *In Canada: Belleville, Ont.*



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REGIONS

How New York City's Budget Compares With...

Paris

\$175*-million

London

\$270*-million

Chicago

\$376-million

N.Y.
City

\$1,528-million

N.Y.
State

\$1,072-million

*1952 estimate

City Hall Studies Plans to Cut Deficit

Biggest issue: transit. But just raising fares isn't the answer. Management survey calls for realistic planning.

The nation's largest city is run like a sleepy country town. That's the bad news New York City's administration received from the mayor's own Committee on Management Survey, which has just completed a three-year study of municipal activities at a cost to the city of \$2.1-million.

Back in 1950, ex-Mayor William O'Dwyer started the study going by appointing a group of city officials, businessmen, and labor leaders. Under the direction of Dr. Luther Gulick, president of the Institute of Public Administration, the committee hired private management experts to conduct a thorough examination of all city problems.

Although administrations changed and city departments protested interference, the probing went right on. Nothing interfered, not even the resignation from the committee of the city's vocal construction coordinator, Robert Moses. The final report, running over 1,200 pages, is aimed specifically at

New York, but may well serve as a primer for other large cities with financial and management headaches.

• **King Size**—You can get a good idea of the magnitude of New York's problems from the size of its new budget (above), which reached the public along with the committee report. Higher costs will cut some services, yet the city plans to spend a record \$1.5-billion in 1953-54. Among the nation's governing units, only the federal budget is bigger. Indeed, New York's expenses rank with the largest anywhere. Its budget is almost twice as large as India's, and about one-sixth as big as that of France. It makes all other city budgets puny by comparison.

As it now stands, however, the budget is only provisional. Mayor Vincent R. Impellitteri says that New York will have to cut its services to "ghost-town" proportions if it does not accept Gov. Thomas E. Dewey's proposal for an independent transit authority to run the city-owned system. Acceptance will per-

mit the city to increase its real-estate levy by \$50-million, but it also means the new authority will have power to raise the fare from its present 10¢ level.

I. Hardening of the Arteries

The committee offers solid evidence that backs up Dewey's plan. In making its survey, it found that transportation loomed as the single biggest problem. The transit system, which represents an investment of \$1.7-billion, is the main artery of the city. But it shows the unmistakable symptoms of hardening.

Estimated operating deficit in 1954 is \$50-million, which does not include depreciation or interest on debt. And serious breakdowns will result if the city does not spend \$60-million on maintenance, \$325-million to modernize its power plant.

It's time, the committee states, for city officials to stop dreaming about future population growth. There is not much chance of any significant rise in the future, so transit planning must be based on realistic estimates. As it is, traffic on buses and trains is now down

Success stories of
CARBOLOY
CREATED-METALS

New all-magnetic, all-transistor "Radioear" hearing aid (made by E. A. Myers & Sons, Inc., Pittsburgh) uses Carboloy permanent magnets in both microphone and receiver. These magnets have eliminated hearing aid failure caused by severe heat and humidity encountered in normal use.

How tiny magnets help improve new hearing aid

An outstanding advance in hearing aids is this new *all-magnetic, all-transistor* "Radioear."

Tiny, powerful Carboloy permanent magnets are used in its microphone as well as its receiver to make the instrument immune to severe heat and humidity. The magnets make possible direct impedance matching to the transistor amplifier, eliminate costly input transformer, bring substantial manufacturing savings.

In countless other applications in many fields, Carboloy permanent magnets help manufacturers market a better product at less cost. In controls, switches, motors, instruments—wherever there's a need for independent, self-contained, never-failing sources of energy—there's a place for Carboloy permanent magnets.

MEN AND METALS TO SERVE YOU

Permanent magnets are but one of the Carboloy created-metals that will help you create better products. Perhaps you can use new Grade 608 Chrome Carbide to combat corrosion, along with abrasion and erosion in equipment parts. Or Carboloy Cemented Tungsten Carbide for cutting tools, dies or wear resistance. Or Hevimet to provide a better balance weight, or for radioactive screening.

"Carboloy" is the trademark of the Carboloy Department of General Electric Company

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for exceptional resistance to corrosion, along with
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for phenomenal cutting, forming, wear resistance

HEVIMET
for maximum weight in minimum space, and for
radioactive screening

"...at 32¢ a ride, more than half the present riders would be forced to walk . . ."

DEFICIT starts on p. 86

to a rate equaling 1925, when total population was about 2-million less.

Nor is New York alone in this respect. Other big cities, like Chicago and Philadelphia, are facing declining traffic on their transport systems. Fare increases have accelerated the drop, but there is little doubt that the decrease would have set in anyway.

• **Lost Riders**—Studies made by the committee reveal what happens when passengers abandon city transport. In the year following New York's fare rise from the traditional nickel to the dime, the city lost one-tenth of all riders. Of this number, about 52% stayed put or walked, 40% took to using private automobiles, and 7% hailed taxis. Taxis, incidentally, will gross about \$152-million in 1953, which is about the same as subway revenue.

Aside from the decrease due to the hike in fare, the decline in city travel stems from a marked increase in automobile ownership, which has created street traffic bottlenecks. Then, too, there has been a movement from the city to the suburbs. Not only residential communities, but businesses, have joined in the march. In addition, the wholesale shift to the five-day week has brought about a big dip in weekend travel.

For the three years before the fare rise, New York's weekend subway traffic declined 13%; in the following two years, it dropped 26% more. Increasingly, subway riders are confining their travel to weekdays. Moreover, about 50% of all passengers are concentrated in four peak hours—from 7 a.m. to 9 a.m., and from 4 p.m. to 6 p.m. The growing trend towards the 9-to-5 workday has resulted in trains carrying over three times seating capacity at peak hours, while they clank along half empty the rest of the time.

• **Zone Time**—The committee frankly admitted there was no simple solution for the transit problem, but it did come up with one plan to woo back some of the lost riders. It suggested the zone-time system, which is utilized by London's underground. Under this plan, fares would be based on (1) the length of the ride, and (2) the time of day. This would permit lower fares for short trips and off-hour travel and end the anomaly that allows passengers to ride 22.6 mi. for a single fare.

Apart from the device of bargain fares, the committee made some calculations to demonstrate how the transport system would operate at fares from

air conditioning
makes a "water sandwich"
to block out 2000-degree heat

That's Fiberglas in the picture. The slender glass filaments being twisted into yarn are formed in a furnace where the temperature is 2000 degrees. Even the *outside* of the furnace radiates 650-degree heat. Yet men must work only a few feet away. • Here was a problem for air conditioning. So the Owens-Corning Fiberglas Corporation called in Carrier when it built its new 6-acre plant in Anderson, South Carolina. Carrier developed a new kind of cooling system—a series of "water sandwiches" that protect workers from the radiated heat. These sandwiches are panels of two steel sheets, with water flowing between them. And a central station Carrier air conditioning system feeds cool outside air direct to the working



first name in air conditioning

aisles. Result: a comfortable 80-degree temperature—only 3 feet from the blazing furnace. • This new installation is typical of the resourcefulness that goes into Carrier air conditioning systems for so many of America's businesses—controlling temperature and humidity to help produce better watches, automobiles, airplanes, better synthetic fabrics and drugs and optical goods. There is *more* Carrier air conditioning serving *more* people and *more* purposes than any other make. Carrier people founded the air conditioning industry more than 50 years ago. All this experience is yours to command. Look for Carrier in the Classified Telephone Directory. Or write to Carrier Corporation, Syracuse, New York.



"No" she cried!

- No what? No stamps! Used 'em all up last night, and she hasn't had a chance to get to the postoffice yet. Second time it's happened this month. The boss is as sore as a boiled—sore boss! Had two URGENT letters he wanted to make the noon plane... His fault, really. This no-stamp rhubarb gets the raus when you have a DM!
- The DM is the desk-model postage meter, little larger than your phone. Can be set for as much postage as you want to buy... protected from loss, damage, theft... and automatically accounted for!
- It prints postage for any kind of mail, as you need it... right on the envelope with a dated postmark—and your own small advertisement, if you like... Even handles parcel post. And has a moistener for sealing envelopes... A great convenience in any office, any time.
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DATE _____ STATE _____ 03
STREET _____

"... it's easier to borrow for new building than to repair old . . ."

DEFICIT starts on p. 86

5¢ to 50¢. At 32¢ a ride, revenue would reach its peak, but more than half the present riders would be forced to walk. This would not mean a 50% cut in operating costs, the committee points out, for interest on debt and other charges remains fixed.

• **Balance Zone**—On the basis of its own figures, a rate somewhere between 12¢ and 17¢ would constitute a "zone of balance" between maximum use and needed revenue. Actually, revenue would balance cost at 17½¢ a ride, but only at a loss of 401-million trips a year out of the current 2-billion rate. This, the committee claims, is the point of diminishing returns that would harm the city in other ways. The committee agreed that a deficit is not only economically sound—it is also socially wise.

At 15¢ the city would have an additional \$70-million of income, which should meet total operating costs. Even so, the report estimates that this will mean another 9.6% reduction in traffic, mostly in off hours, and the city would still have to provide \$72-million as a subsidy.

On the fare question, committee members could reach no firm conclusions. They preferred to let an independent transit authority make the final decision.

II. Wages of Neglect

Transit is the major problem plaguing the city, but it is far from being the only problem. The committee charges the city with "systematic neglect of maintenance" that amounts to an indictment of all departments.

For example, leaking water pipes show a loss of 150-million gal. a day. Schools are in sad shape, with many classrooms unusable because of need for repairs. Similarly, hospitals are curtailing service, and the fire department is still using antique equipment.

• **Tax Music**—Maintenance, of course, is easier to cut than salaries or new programs that appeal to voters. As a result, city expenses have grown as much from initiating new functions as from inflation. In fact, the city finds it simpler to borrow for new building than to repair old ones. No one in the administration, the committee declares, wants to face the tax music. It dryly adds: "The famous commissioners are not the frugal administrators; they are the big spenders."

No taxes are pleasant, but now they

are inevitable. Before adding to the present burden, however, the city could make a start by enforcing present laws that could bring in about \$32-million more under existing rates. Water alone could add \$9-million, as half of the consumers are still unmetered. And charging \$5 a month for all-night street parking, plus the installation of parking meters, would bring in an additional \$25-million each year.

• **Alternatives**—In calling for a long-range tax program that would put an end to current makeshift policies, the committee lists the possible alternatives:

- Continue the present 3% sales tax and extend it to cover beer.
- Restore the right of the city to tax pari-mutuel betting.
- End the "hypocritical" attitude that prevents a tax on off-track bookmaking.
- Impose a personal income tax.

• **Line-Item Budget**—Although an income tax would be most painful, the committee reasons that it might make citizens demand more efficiency than they are now getting. In this connection, it recommends that the present line-item budget, introduced over 40 years ago, be replaced by a modern program budget.

A line-item budget describes, in minute detail, how much each department will spend for salaries, paper, postage, and office equipment. But it provides no information on how expenditures compare with the previous year or what each department will do with its funds. And once a line item is established, it tends to lead a charmed life, for even an expert finds it hard to decipher the maze of figures. As far as voters are concerned, they might as well read Sanskrit.

III. General Staff

A program budget will show the voters where their money goes, but new personnel are needed to produce economies. In fact, the neglect and waste that characterize the city's operations can be traced to the lack of top and middle management.

What the city requires is "100 men and women of top management ability" scattered through each department to provide independent executive leadership. Such a program, the report states, is practiced by successful corporations, where subsidiary companies are set up to do various production jobs, while the mother company takes care of general policy, finance, and coordination.

At least \$5-million would be needed for salaries, but the committee has no doubt that it would be well worth the expense. It cites the case of the Board of Education, whose building program was bogged down until a management

YOU'LL NEVER CATCH

a deer napping



The wooded glen his home, the graceful leap his stock in trade . . . this fellow is always alert, a step ahead. With a long suit in intelligence, he knows just when to go—where to go. Once decided he's up and away, fleet afoot and fast.

Looking before you leap into the manufacture of a new product is very important. Chances are, by allowing yourself the time to *plan ahead* you will be *ahead* in the long run. Early investigation of castings offers you many benefits, especially when you consult Campbell, Wyant and Cannon. Experts in metallurgical engineering, precision control, mechanization of production, CWC provides you with castings that allow greater design freedom, wear longer, machine easier—all at much less cost.

Why not let CWC experienced engineers help you draw a bead on a better product? It might mean you'd have time to head for the woods and match wits with the wary deer.

**CAMPBELL, WYANT AND CANNON
FOUNDRY COMPANY**

Muskegon, Michigan



Big Yard...

**LORAINS
ON RUBBER
SAVE
MONEY!**



OR Back Lot

Take a close look at the two photos. Both are yard storage operations of big, bulky materials. One yard has roadways paved with concrete. The other has winding dirt aisles in a weed-grown lot. One company is a giant automobile manufacturer—the second, a small welding plant.

Mobile, rubber-tire Lorain Self-Propelled Cranes are saving time and money for each of these plants, proof that any plant can cut costs and handle more materials the Lorain Crane way. Paved yards—or "back lot"—if material must be unloaded, loaded, stored or transported, a rubber-tire Lorain can fit into your material handling problem.

Savings start with men—one man at the controls of a Self-Propelled Lorain does the work of a crew; rubber-tire mobility takes the Lorain all over the yard quickly; air steering and air brakes add to ease of operation and maneuverability; 16 or more front end lifting attachments handle any size, shape or type of material. Uses are unlimited—and there's a saving with every use!

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THE THEW SHOVEL CO. • LORAIN, OHIO



expert took over. The result: The program has moved into high gear. What's more, \$3.6-million was saved in construction costs in 1952.

Apart from the education program, the city has already saved \$25-million as a result of acting on the committee's recommendations. This, the committee states, is peanuts to what the city could save—without any loss in services—if it put economizing in the hands of management experts.

• **Manhunt**—Accordingly, the report recommends that the mayor obtain approval to create a special board that would scour the nation for qualified personnel. This would be an emergency operation to be completed within three years. The committee hopes that some top management executives can be upgraded from local civil service ranks, but it calls for the appointment of top personnel, "whoever they are and wherever they may be found."

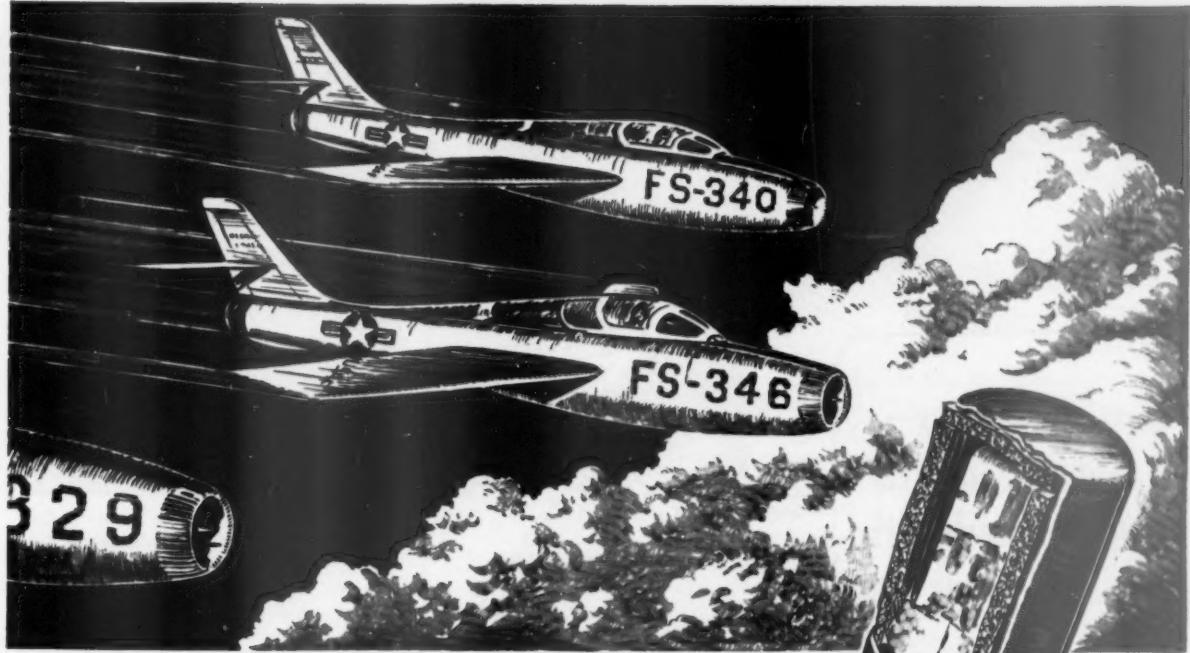
One important new post would be a full-time civil service administrator, to introduce a completely revamped merit program. This would include a new wage and salary system and a promotion plan to replace the antiquated machinery now in use. He would also be empowered to increase salaries and cut staff.

At the very top, the committee calls for a general city manager, a move that has also been demanded by Gov. Dewey. This appointee would free the mayor and other elected officials from detailed management operations and permit them to concentrate on broad policy decisions. Here again, the report draws a parallel with big business, likening the mayor to the chairman of the board, the manager to the administrative boss.

In assuming responsibility for a long-range program, the city manager is advised to establish a management council, bringing together top executives from all departments. The council would act as an administrative general staff to remedy deficiencies and coordinate plans. With the council in operation, the committee believes a real overhaul is possible and declares that it would supply some of the necessary competitive pressure essential to increased efficiency.

Skeptics doubt that the city could find a man willing to tackle these multiple problems; or that, even if it did find one, he could get far without hurting political careers.

The final recommendation offered by the committee called for the construction of a new central office building that, like the Pentagon, would be general staff headquarters for the executive group. It observes that the agencies and departments are now spread all over the city, so that no one knows what anyone else is doing.



F-84F Thunderstreak courtesy Republic Aviation Corp. Cycle chopper courtesy Airpax Products Co.

from -90°F to 600°F

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effectively dampens vibrations

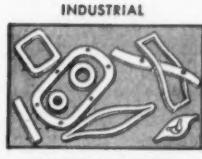
For their cycle chopper, widely used in aircraft, Airpax Products needs a special type of cushioning material—one that dampens vibrations at wide extremes of temperature.

The material that meets both requirements is Spongex cellular silicone rubber. Cellular rubber absorbs the shock; silicone provides thermal stability.

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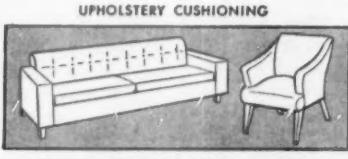
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Check your use of silicone rubber—perhaps, your product will give better service or be produced at less cost with Spongex cellular silicone rubber. Write to us for further information.



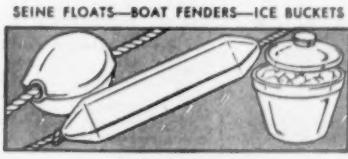
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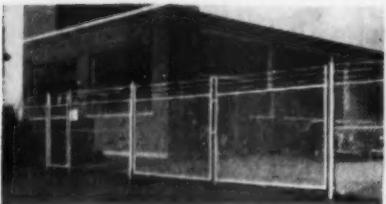
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And, Anchor gives you long-lasting protection. Deep-driven Anchors hold the fence erect, in any soil or weather. "Squar-Form" corner posts and square frame gates are other exclusive features that make Anchor Fence your best buy!

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Division of ANCHOR POST PRODUCTS, INC.

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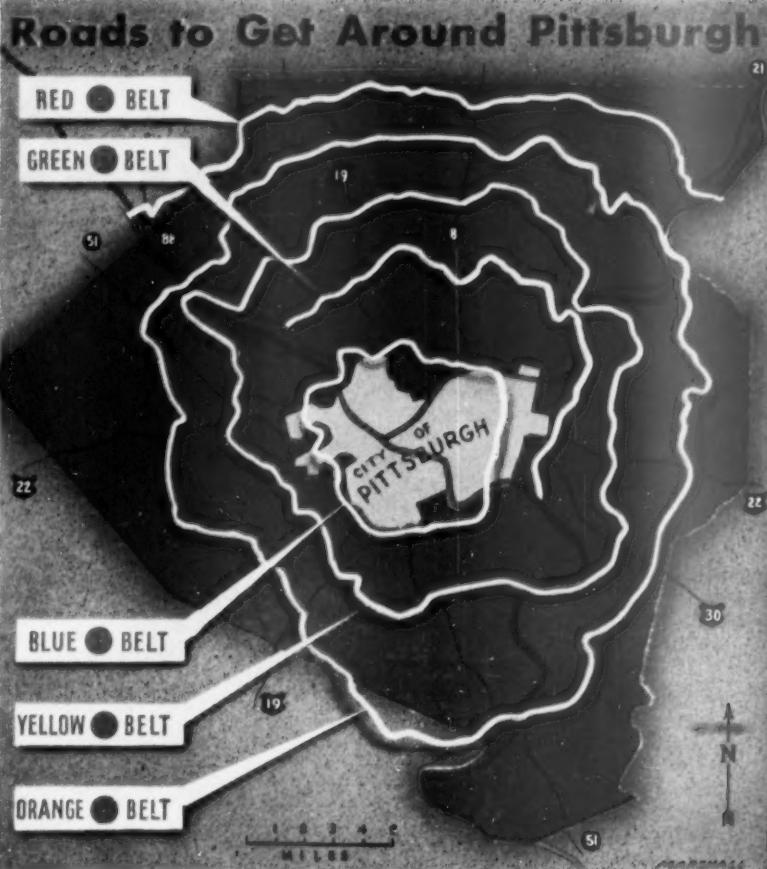
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Travel by Spider Web

Rare is the motorist who hasn't fouled himself up irretrievably by trying to take short-cuts through back streets or country roads that he almost, but not quite, knows. No signs, tree-hidden signs, incomprehensible signs, all contribute to his eventual downfall.

When the unhappy driver lives or travels in Allegheny County or anywhere within a 15-mi. radius of the center of Pittsburgh, his plight has been particularly pitiable. Pittsburgh and its surrounding network of suburbs, industrial centers, and just plain country is admirably connected with well-paved and well-marked highways, all of them spreading out like the spokes of a wheel from the center of the city.

• **Unknown**—The catch came when anyone wanted to get from one spoke to another. Actually, there were plenty of interconnecting roads and streets, but nobody except the neighbors' children and exceptionally bright delivery drivers knew how to use them. Even such talented pathfinders could operate successfully only in a limited sector;

when they wanted to get from a point west of the city to a point east of it, they followed the main spoke highways like everyone else—and thus helped snarl the already matted traffic in the center of the city.

• **Little by Little**—Such was the sad state of affairs back in 1951. At that time, Pittsburghers and their neighbors began marking the little known lateral roads. Signs went up piecemeal. Then came the final stroke of genius, dividing the zones around the city into distinctive colors, each with its own clearly marked belt connecting road (map, above).

Mind you, all this was done without adding any new streets or new roads. What it cost was the cost of the road markers; neat and easily understandable jobs that stand out by night as well as by day (picture, page 96).

The system caught on with the drivers from the start. Take the case of a dweller in the north suburbs who wants to drive his Aunt Minnie to the Greater Pittsburgh Airport, in the



Read why you should buy your
special steels from **Jessop**

Basically there are two reasons—good quality and good service. Because Jessop is a fine name in special steels dating back to 1724, you might expect it to be covered with moss, but it isn't. Jessop is a youthful, eager team with a keen desire to produce for you better steels at a better delivery schedule than you have ever known before. Take saw steels, for example. Jessop is in the process of greatly expanding and improving its facilities in this field. It is doing so in the name of better service, but it will need more customers to keep its equipment busy. This urgency will become your profit if you order your saw steels from Jessop now. One more thing. If you are now a customer of Jessop you will agree with the statements made herein. If you are not, and have some doubts, just ask a Jessop customer. *He'll vouch for the things we say.*

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STEEL COMPANY • WASHINGTON, PENNSYLVANIA



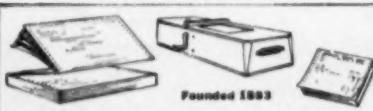
The time I waste every day! Take these three forms, for instance. Each one has to be typed separately although the information is the same on all three. I saw how the Auto-graphic salesman combined forms just like these for the company downstairs. Cut their typing time in half.

I tried to tell the boss about it three or four times, but he said he's too busy to look into it right now. Gives me a feeling of frustration.

Are you losing time and money like this in your office? Want to find out? Just fill out the coupon below, mentioning the kind of forms you use. We will then select for you, from our Forms Library, samples of combinations of these forms we have made for other concerns. They may suggest a method that will save you real money.

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BLUE BELT, easily followed by these signs, is inmost circle around Pittsburgh.

western sector. In the old days, he set out with compass and hardtack, stopped for directions at a dozen gas stations, and eventually arrived on the following day.

• **How to Do It**—Not so today. He heads for the city on one of the old reliable spokes, until he comes to a sign announcing intersection with a belt route—in this case, the orange belt, which will lead him straight to the airport. In a more complicated example, he would still do all right by consulting a highly simplified map.

The whole setup is known to its contented users as the Spider Web Belt Route Plan. Three of the belts—orange, yellow, and the inmost blue one—ring the city completely. Of the others, the next to-the-inmost green route is roughly a semicircle. The red one, farthest out of all and on the north side, is little more than a quarter circle.

The belts add up 268 mi., of which 140 mi. is county road, 77 mi. is state highway, 45 mi. is town or city street, and the rest unimproved township road. The Orange Belt is the longest, 109 wandering miles.

• **Plans**—The Blue Belt, shortest of all, is 40 mi. long; on it you can circle the city, close to the boundaries, in about two hours. Later on, the Blue Belt may get a 25-mi. little brother, the Purple Belt. This would be close downtown Pittsburgh, and designed to avoid the congested Liberty Tubes.

Generally, Allegheny County thinks its belt system is fine. But there are a few dissenters: back-road and back-street dwellers who are pained by the rush of traffic to their front yards. For their letters and calls of complaint the Transit & Traffic Commission has a standard answer: "Too bad that you live on a belt route, but the traffic must flow."

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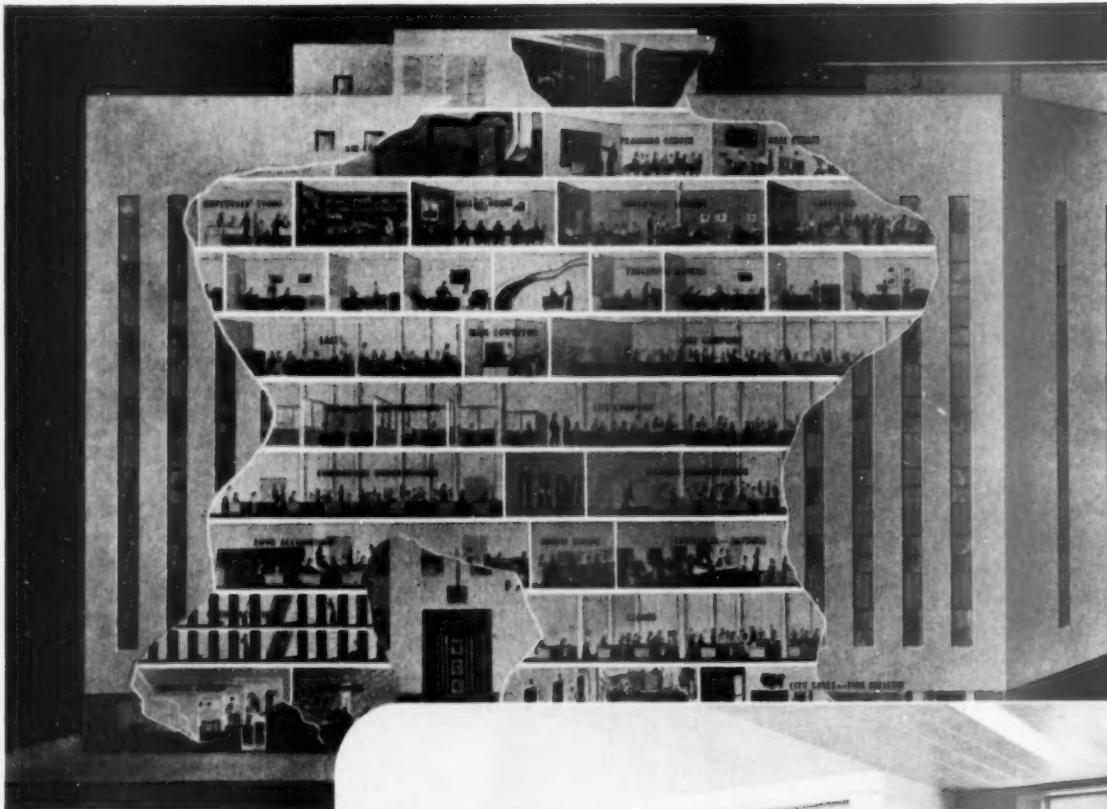
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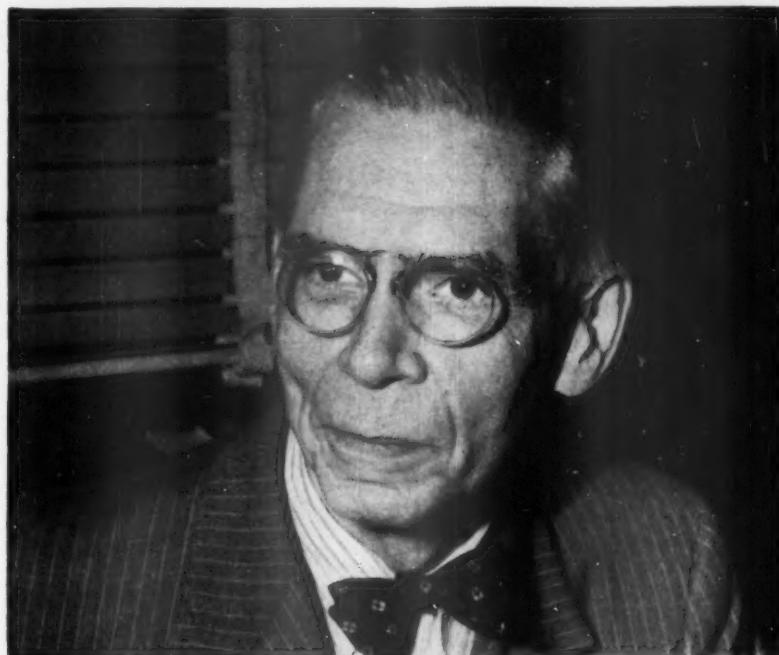
Farm Bureau Insurance Companies Building
Columbus, Ohio

Architects: Benham, Richards & Armstrong
Builders: Haig M. Boyajohn & Associates

Here, Mills ceiling-high walls, glazed cornice-high partitions and glazed railings form a group of attractive, dignified, semi-private offices. There is no waste when Mills Walls are rearranged. All parts may be used over and over again.



BOOKS



EDWIN G. NOURSE has written a book about his experiences in . . .

CEA: Advice from a Veteran

The Council of Economic Advisers, says economist Nourse, should be given more prestige than it had under President Truman. And it should consist of three men.

Dr. Edwin G. Nourse, first chairman of the President's Council of Economic Advisers, came along this week with a book entitled *Economics in the Public Service* (Harcourt, Brace & Co., Inc.: \$6). His publisher's timing was almost psychic.

The book is a study of CEA as Nourse knew it under former President Truman. Nourse points up the council's special problems and shortcomings, suggests ways of dealing with them. That's exactly the kind of information President Eisenhower has been looking for to help him decide what CEA's future will be.

• **Keeping Ahead**—No one doubts that Eisenhower needs some kind of device to help him anticipate dips and turns in the economy.

As a politician, he can't afford to let a depression ruin his Administration. As President he has the direct duty to administer the Employment Act of 1946, which was voted to provide the President with tools to anticipate and counteract economic sickness.

In the campaign for President last

fall, Eisenhower promised that the finest brains would be brought together in Washington to foresee the signs of any recession or depression, so that the federal government could be mobilized accordingly.

• **Example**—CEA has regularly charted the economic course since 1946, when it was created by the Employment Act. Its work showed up in a state paper, the President's Economic Report, and in its own report of factors making up its advice to the White House.

For over three years Nourse headed up the three-man CEA, along with Leon H. Keyserling and John D. Clark. On Mar. 31 of this year, the whole CEA organization expired. A new organization is to be set up by July 1, and Eisenhower already has his top man, Dr. Arthur F. Burns of Columbia University, at work. He hasn't decided, though, whether Burns will go it alone, or whether a triumvirate will be revised—or, in either case, what kind of council it will be.

What Nourse recounts in his book might have been ordered personally by

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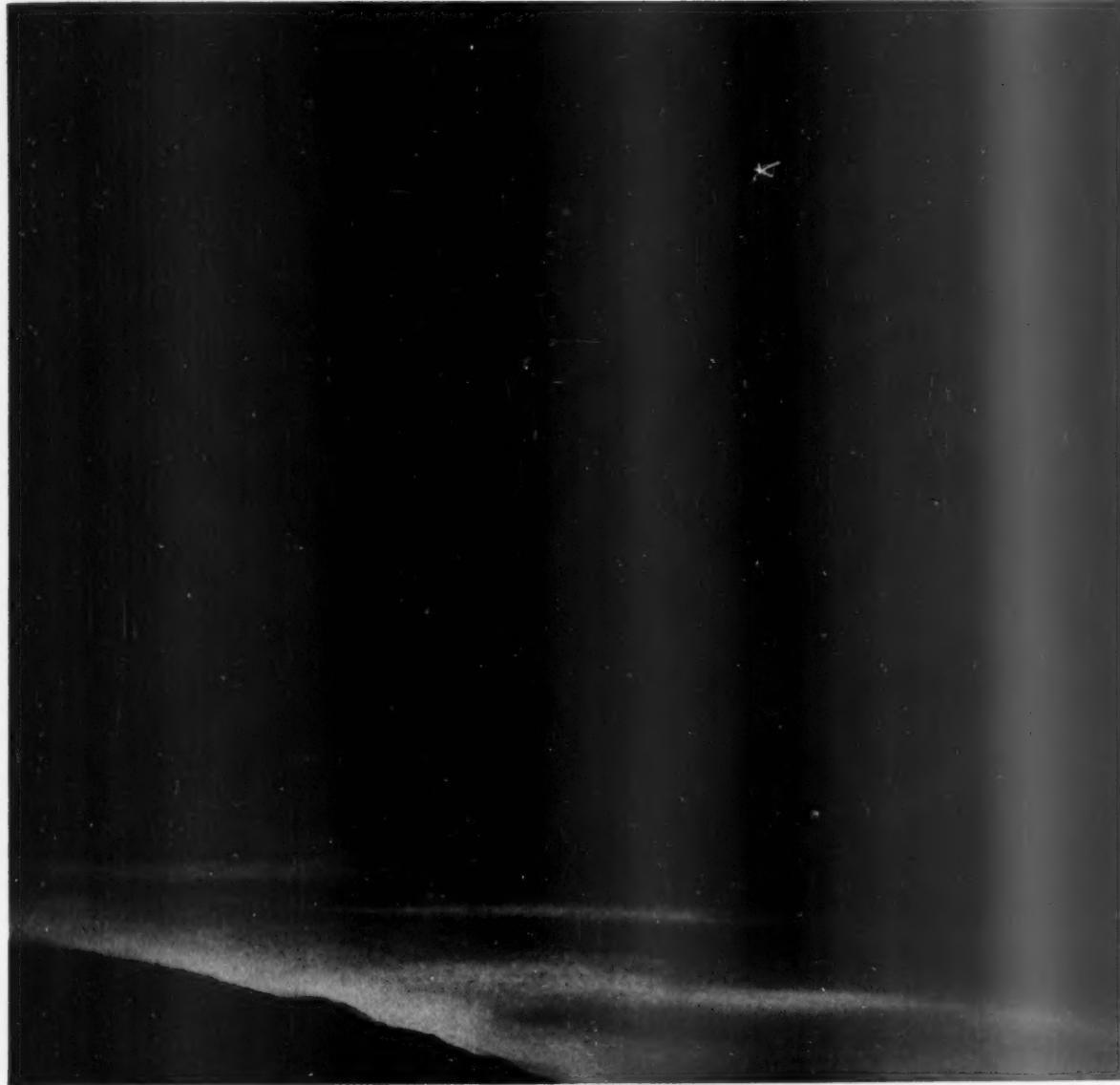
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same rate as the plane's aluminum frame. It took fifteen years to do it but it was worth the time and cost. We called this improved cable, HYCO-SPAN*.

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speed the plane is flying.

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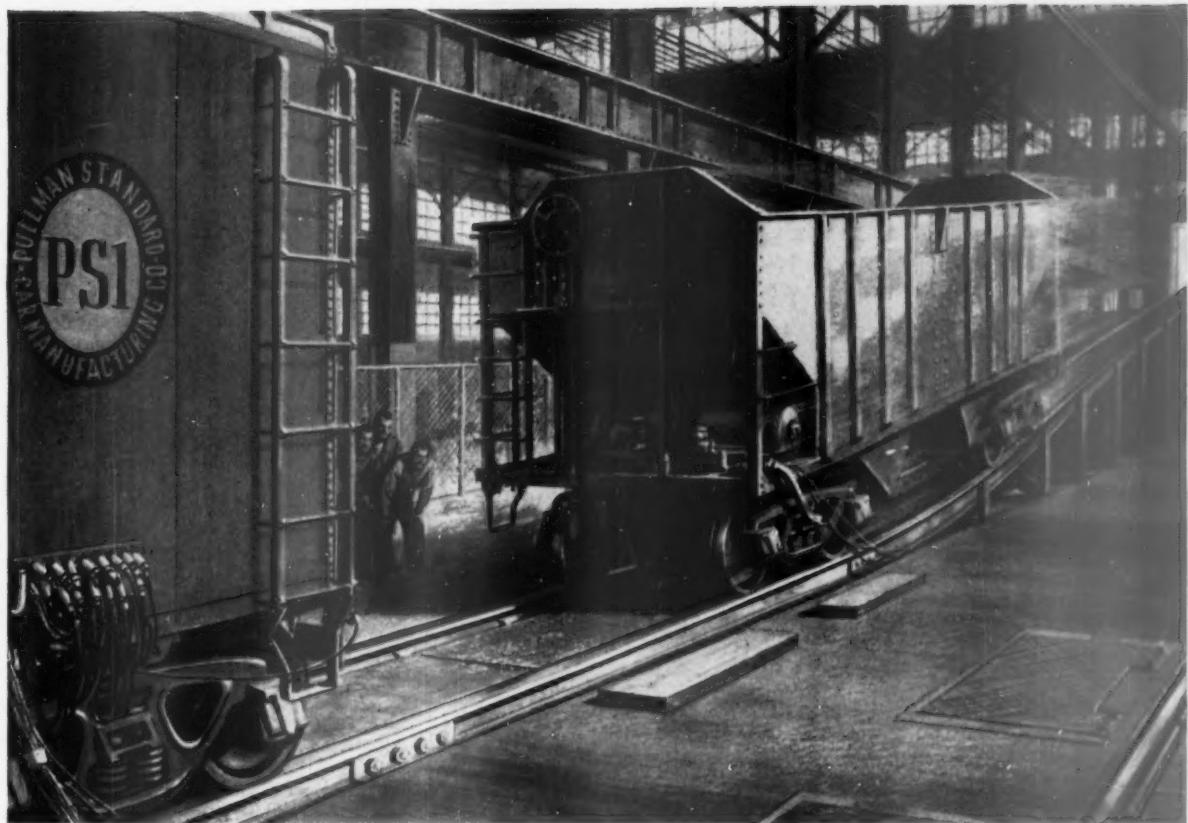
HYCO-SPAN Cable, developed by the engineers of American Steel and Wire Division, is a typical product of the research work that goes on constantly at United States Steel. A technical bulletin outlining the properties and characteristics of this control cable is available. Write United States Steel Corporation, Room 2810-R, 525 William Penn Place, Pittsburgh 30, Pa.

*Short for "high coefficient of expansion."



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Eisenhower to help him decide these questions.

Nourse describes in detail the trials and tribulations he suffered in his relations with Truman and Keyserling—an almost epic adversary—in shaping the first council's procedures and practices.

From these experiences, he has devised recommendations on how the Administration can better carry out the Employment Act.

- **Prestige—First**, Nourse wants the council to have real prestige in the White House.

Truman never gave it the standing Nourse is convinced economic advisers must have to do a worthwhile job. In fact, while Truman often expressed interest in the council's work, Nourse recounts time and again that CEA's reports hit the White House after Truman had decided policy on counsel from political and casual advisers. The nub of Truman's thinking on the role of the council, Nourse says, was to see that the U.S. kept a \$200-billion economy going. This was Truman's first piece of advice to his chairman.

Nourse spent considerable time trying to get Truman to give him and his colleagues standing, socially as well as governmentally. He even took to the President his chagrin at being placed at the lower end of the table in Washington's protocol regulations.

Nourse found Cabinet members and agency heads cool at best toward the council's assistance in carrying out departmental functions. He saw the difficulties compounded when, in 1949, the council was reduced to the fourth rung down the protocol ladder.

- **Three Men**—Nourse leans, also, toward restoring the three-man council.

The obvious merit of a single adviser—elimination of conflict between CEA members—has its drawbacks:

"This would be a comfortable but not a very challenging situation. It would mean that the economic adviser would come to his post along with the President's entry into office and would depart with him. . . . It would personalize the position to the greatest degree, whereas it seems to me, ideally, to call for being institutionalized so that there would be a continuing and largely de-personalized staff rather than too 'cozy' a personal relation with a particular President."

Under a new three-man council, the chairman should be put back into the "Little Cabinet." Eisenhower should see to it that the new advisers have a chance to work with top government officials—a status that Burns already is supposed to enjoy.

- **Broad Policy Only**—And Nourse is definite on two other points:

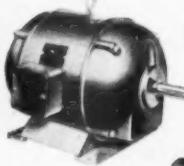
The new council members should be barred from appearing before Congressional committees as spokesmen for the

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President, and should confine their speaking and writing to broad economic analysis—designed to promote better understanding of economic issues rather than to lobby for specific policies.

Here he is in direct conflict with Keyserling. This conflict began early in the life of CEA. It was the starting point of the two men's differences, and led to Nourse's resignation on Nov. 1, 1949. At one stage, the two men were so much at odds that they communicated through third persons.

• **Split**—Nourse is a professional and academic economist who spent the Roosevelt era in the relative ivory tower of the Brookings Institution. Keyserling was educated as a lawyer and learned his economics as ex-Sen. Robert F. Wagner's expert on housing and other New Deal legislation. The two never saw eye to eye.

Nourse refused to appear before any Congressional committee, including the Joint Committee on the Economic Report. Keyserling roamed Capitol Hill with advice for any who would listen. Nourse spoke to the press only through formal statements.

Keyserling welcomed invitations to radio news panel shows, where he ad libbed his own economic views, or espoused the President's Fair Deal program. In a speech at a Democratic Party rally in San Francisco in 1949, Keyserling said that an economist who felt he could think outside the political pit was living in an ivory tower, and his work would show it.

The third member of the original council, John Clark, took much the same stand as Keyserling. He appeared before committees of Congress, and never let his position prevent him from visiting Democratic headquarters on an election night.

• **Judgment**—Nourse concludes that the general verdict of the first CEA is this: "Too much politics, and not enough economics. So interpreted and so operated, this device [the council] of the Employment Act is at best superfluous and at worst mischievous."

He says recent reports of the council and of the President himself have revived little attention. The council's advice hasn't been sought or "even tolerated by the mobilization agencies or by 'old line' departments."

• **Fresh Start**—Nourse fears that Truman, initially, did not succeed in finding three economists of the stature needed for the job. That was the first misfortune. Following along, Truman did not give CEA stature, did not make use of the talents the members and staff possessed, and did not establish a confidential character for their service.

The new council or adviser, Nourse thinks, can perform an evolution of the council to a higher role—with Eisenhower's help.



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Investment Primer

The striking case of a Greek immigrant dramatizes the importance of prudent choice of securities.

Nicholas J. Harvalis came to this country from Greece at the age of 15. He arrived with little education and no money. He never married. He spent his life working in Omaha (Neb.) cafes and restaurants, and never received wages of more than \$135 a month. But today they are still talking about Nicholas in Omaha.

• **Nick's Fortune**—"Nick" was thrifty and hard-working. He spent much of his spare time studying financial papers and books. In 1927 he became a United States citizen.

And in 1937 he began a systematic purchase of common stocks. His early investments included National Distillers Products Corp., Laclede Gas Co., General Motors Corp., S. S. Kresge Co., Atlantic Refining Co., International Nickel Co., J. C. Penney Co. and General Electric Co. He reinvested dividends, kept careful records, and paid his taxes.

In 1943 he started selling stocks for long-term profits when he felt prices were ripe for such sales. Later he inaugurated a repurchasing program.

When he died on Dec. 31, 1950, he left an estate of over \$160,000, amassed almost entirely from investment and reinvestment of savings from his meager earnings of \$1,600 or less a year. The common holdings in his estate included Cities Service Co., 1,370 shares; Boeing Airplane Co., 200 shares; Chicago Rock Island & Pacific R.R., 300 shares; General Electric, 100 shares; American Bank Note Co., 200



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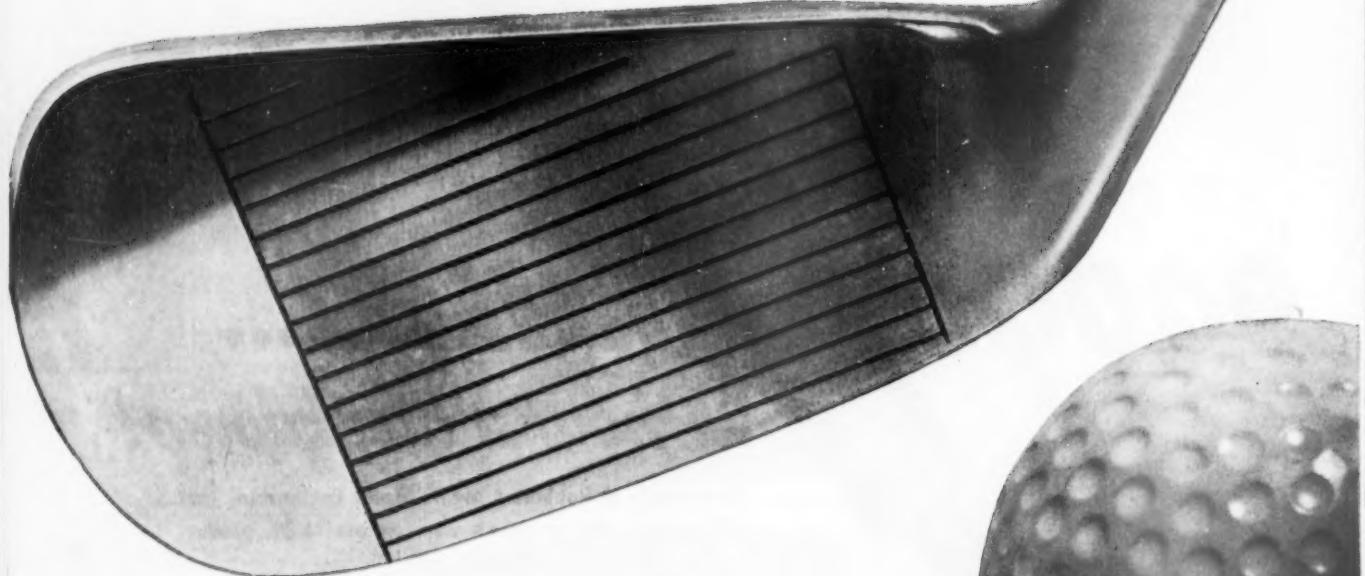
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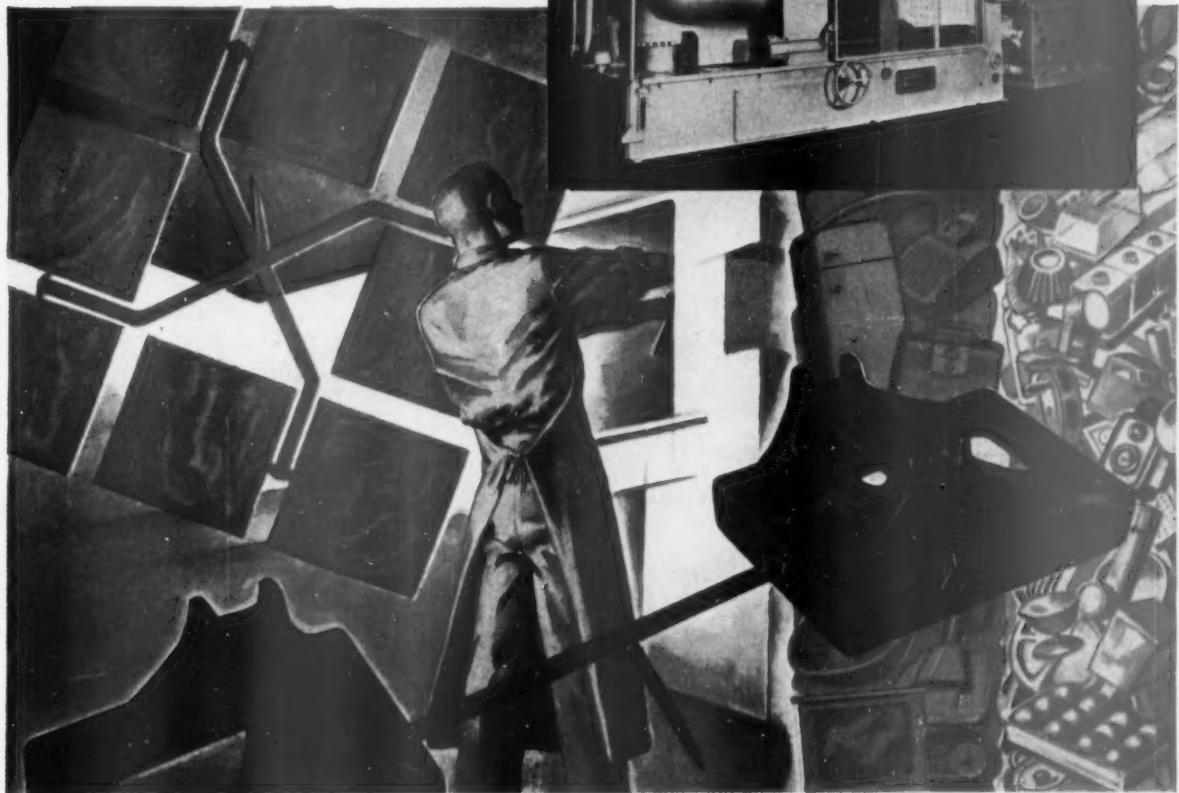
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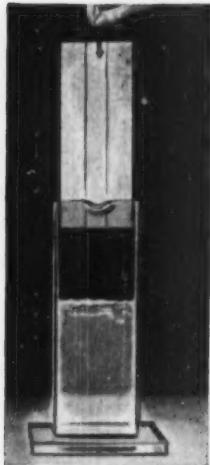


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• **The Moral**—The fabulous story of Nicholas Harvalis—as told by his attorney and friend, Max D. Fromkin—is related by Louis Engel, a former managing editor of **BUSINESS WEEK** and now advertising manager of Merrill Lynch, Pierce, Fenner & Beane, in a new book entitled **How to Buy Stocks** (Little, Brown & Co., Inc., \$2.95).

"Few of us would be willing to pay the price Mr. Harvalis did for his achievement," says Engel. "But then most of us would be willing to settle for just a small measure of that success—the success that can be achieved not by luck, not by 'inside tips,' not by speculation, but by prudent and intelligent investing."

• **Book of Basics**—Engel's 252-page book, in one sense, is a primer for those who know nothing of Wall Street, have funds to invest, and want a straightforward explanation of the procedure for buying securities. In another sense, it is a book for students interested in knowing what goes on in the financial community on lower Manhattan, and the mechanics of the market.

Chapters deal with such subjects as what it means to invest, a description of common and preferred stocks, how and why new stock is issued, bonds and the investment banker, how new issues are regulated, government and municipal bonds, how the stock exchange works, how a market is made, how small orders are handled, how to open an account, and other topics. The book explains how to read the stock table of a large metropolitan newspaper, and lists standard sources of financial information (including **BUSINESS WEEK**) that are available to any investor, big or small.

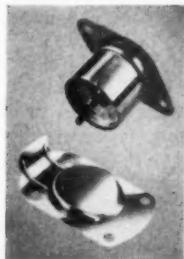
• **Stocks Favored**—Engel mentions savings banks and life insurance as repositories for extra money, but bluntly points out that the "unseen risk of inflation" can cut purchasing power in both cases. There is, on the other hand, protection against the "unseen risk" in an investment in real estate "provided you buy the right piece of property at the right time and at the right figure, and provided you're just as lucky when you sell it." He adds:

"Finally, you can invest in stocks and bonds. That's what savings banks do with at least a part of the money you deposit with them in order to earn the interest they pay you and earn a profit for themselves. The same thing is true of insurance companies. Both kinds of institutions have always invested heavily in bonds, but today they are buying more and more stocks to the limits permitted by the several state laws. Fur-

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*Another example of how Carpenter *Application Engineering Service is working for industry*

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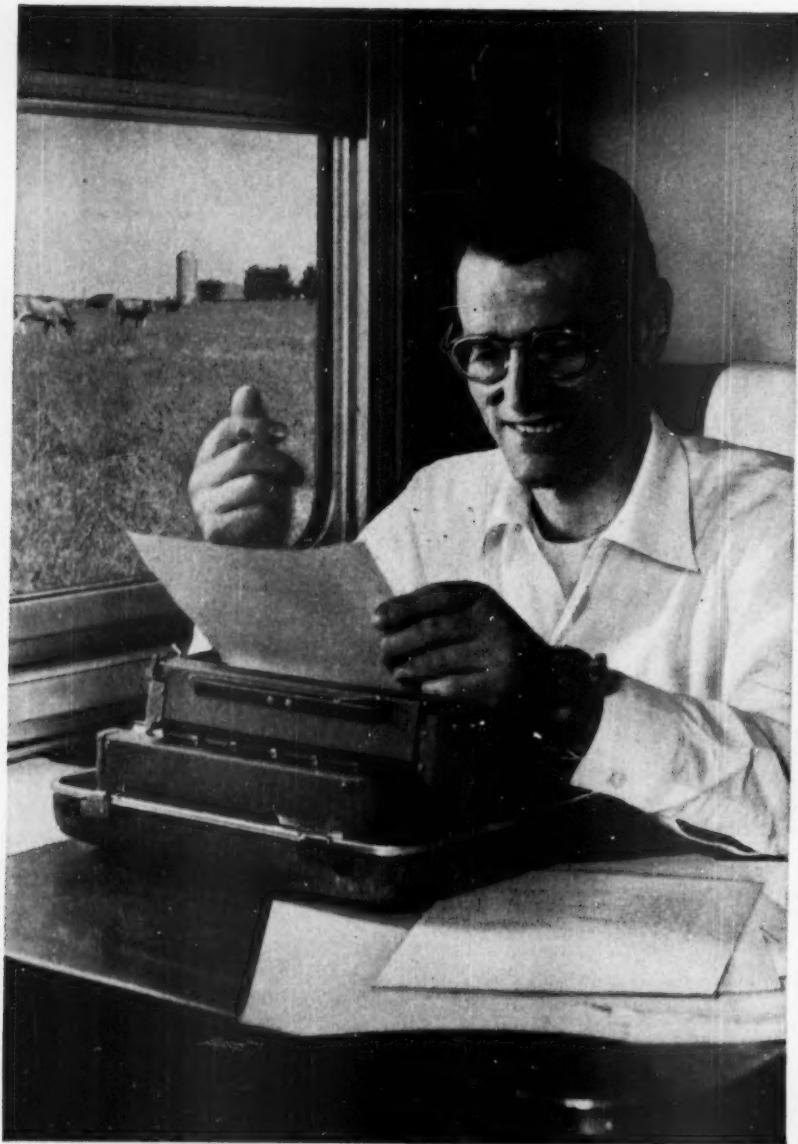
Here is another example of how Carpenter A.E.S. is working with industry to unearth new ways to make products more functional, more salesworthy, more economical to produce. You can count on this Carpenter service to help bring these advantages to your plant, too. It goes to work as soon as you get in touch with your Carpenter Mill-Branch Warehouse or Distributor. THE CARPENTER STEEL CO., 140 W. Bern St., Reading, Pa.



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thermore, commercial banks and trust companies that are responsible for funds left with them to invest for various beneficiaries are putting a greater proportion of those funds into stocks."

Engel contends that over the years the average stock investor "has earned from 3% to 7% on his money" and "has seen his stockholdings go up in value as prices generally have risen."

• **Not So Easy**—There will be some, particularly those who bought shares in the late 1920s and had to liquidate in the early 1930s, who may think that Engel is over-partial to stocks. Anyone who has seen a favorite issue tilt downward when it was supposed to forge upward may feel that stocks, like real estate, are a protection against inflation only when you buy the right stock at the right time at the right figure.

No one can quarrel with the thesis that, basically, inflation is always at work, pushing up prices and nibbling away purchasing power over the long term. The problem, as almost any Wall Streeter will tell you, is selecting the stock—or group of stocks—that will afford the best measure of protection.

• **Flexibility**—Engel thinks the investor who selects his own holdings is in a far more mobile position than one who buys a mutual fund. "It's not always easy for a trust to buy good stocks at good prices in a rising market, but it would be much harder for it to sell 5,000 shares of this or 10,000 shares of that at anything like a fair price in a declining market," he declares.

• **Bullish**—As for the general investment outlook, Engel leaves no doubt about his views. On the long term he is bullish, and understandably so, for he has the averages with him.

"This book is based on a very simple premise: that the stock market is going up," he says in the foreword.

"Tomorrow? Next month? Next year?

"Maybe yes, maybe no. Maybe the market will be a lot lower than it is today.

"But over any long period of time—ten years, twenty years, fifty years—this book assumes that the market is bound to go up.

"Why?

"Because it always has.

"Because the market is a measure of the vigor of American business, and unless something drastic happens to America, business is going to go on growing.

"Because prices of food and clothing and almost everything else in the country—including stocks—have steadily gone up as the buying power of the dollar has dwindled.

"... These are the reasons why the author is sold on the idea of investing, of buying stocks for the long pull—not for a quick profit tomorrow.

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RESOURCES

Storage Fight

In Pennsylvania, gas men and coal men are feuding over regulation of underground storage of gas.

Pennsylvania's harassed legislature, only nominally GOP-controlled, can't afford a fight this year. For that reason it is trying hard to stay out of one—a long-standing dispute between two of the commonwealth's older industries, coal and natural gas. The coal people want the lawmakers to make the gas people stop storing gas under coal mines in western Pennsylvania.

The lawmakers ducked the matter in their last session two years ago. This year the fight's in the open. But chances are the legislature may sidestep the tussle entirely.

• **Complications**—Nobody has really figured out why Pennsylvania's gas-coal fight came about as it did. Basically, you might say, it is of divine origin. When western Pennsylvania was made, it was underlaid with one of the richest coal deposits ever discovered. Below the coal, hundreds of feet below the plush Pittsburgh seam, a lot of natural gas was entrapped.

Today there are some man-made complications. Both industries, in some ways, are heading over the hill. The local natural gas pools are being depleted, and the steam coal is pretty much mined out. Still, each has a great future—too great a future to compromise away. Domestic gas usage is increasing tremendously, and much of the recoverable coal that's left is metallurgical coal, much too valuable to the steel industry to leave in the ground.

• **Necessity**—Even more important, both coal men and gas men need storage. The depleted gas sands are the only sensible, economical place to store natural gas imported from the Southwest, on which the area now depends. Some say the coal industry will need these same storage pools to handle the output of the coal-gasification plants that some coal producers already have under development (BW-Dec. 15 '51, p84).

What these underground warehouses consist of is natural cavities in the ground big enough to hold large volumes of gas, or rock formations with pockets of sand in which now-depleted gas was stored originally (BW-Sep. 1 '51, p70). These cavities are pressurized, or repressurized in the case of an old well, so that gas men can get the gas

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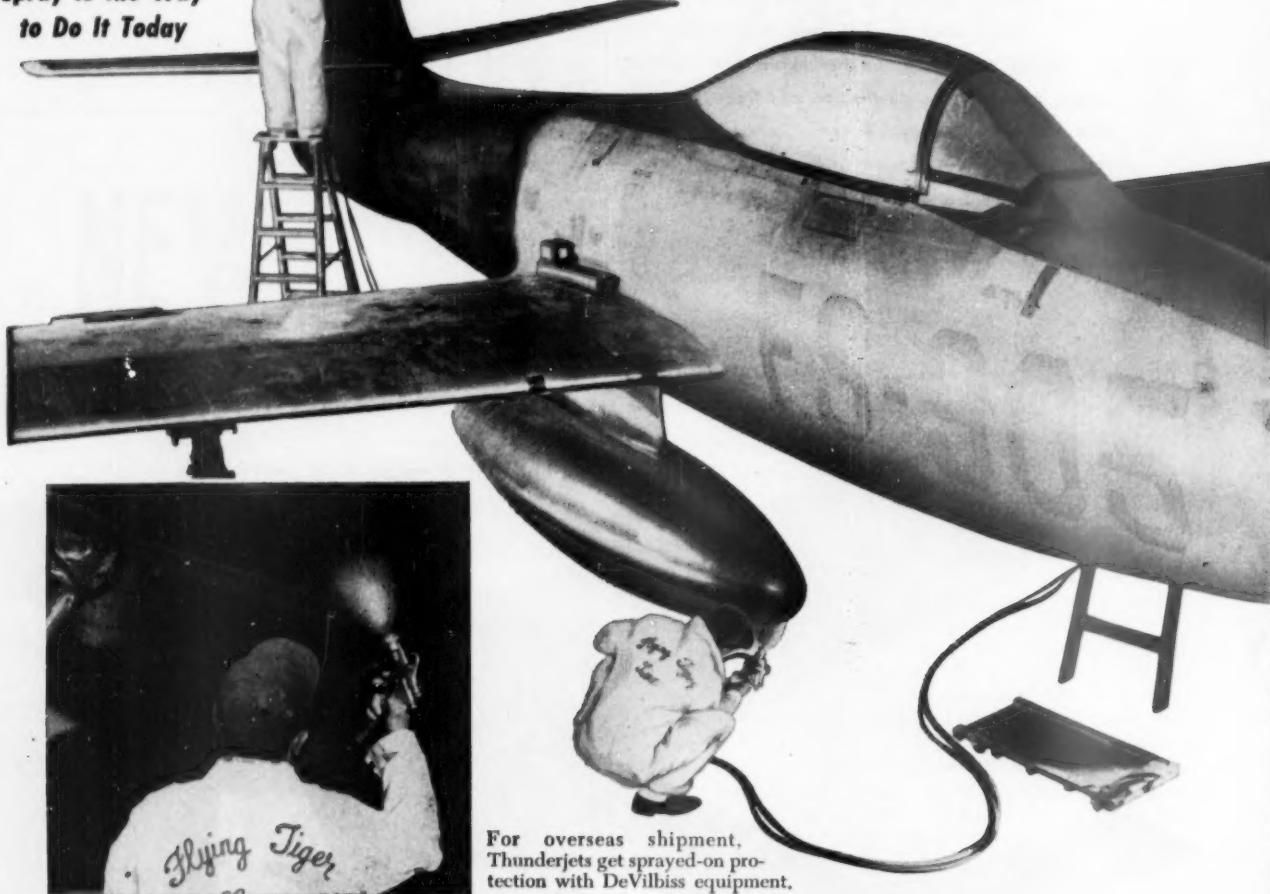
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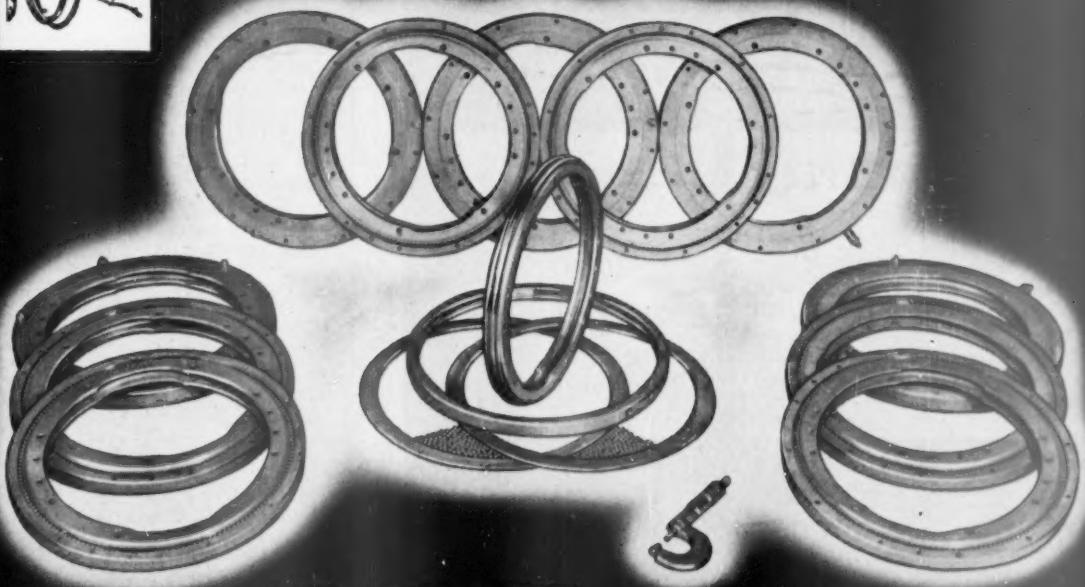


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BW-4

stored in these holes out fast on winter days of peak usage.

• **Safety First**—The coal interests that started the fight insist that all they are after is safety. Even the calmer coal men point to several real dangers in underground storage.

A coal-cutting machine, for instance, can sever an uncharted gas well extending through a coal seam to a gas sand. And coal people shudder at the prospects that roof subsidence over worked-coal seams might shear off well-casings; that the sulfur water inevitable in any coal mine could corrode casings; that unplugged or casually plugged wells may not stand the repressurizing strain; that the breathing action of sand from which and into which gas flows daily may dislodge plugs in old wells.

• **In a Rage**—The gas people, on the other hand, say these fearsome things are unlikely to happen over storage pools, that the margin for error is just as narrow for them as for the coal operators. If they're repressuring expensive, imported gas, they say, they have to know where every well in a given sand is, and make sure it is tightly plugged—or lose both their gas and the storage they depend on so completely.

They rage at the implication that they value earnings above human lives. They make the point that gas production and storage has been conducted safely for years and that mining should be safer over a storage pool, where everyone is aware of the operation and careful to avoid risk, than above an old producing pool that might have numerous uncharted wells.

• **Too Drastic**—All this has not prevented a minority coal group from brutally attacking natural gas storage under coal. For weeks, in Harrisburg, both industries have been locked in a bitter struggle that came to a head last month when a group of southwestern Pennsylvania coal operators—primarily metallurgical coal producers—introduced a bill that would have prevented gas storage under or near coal mines or reserves, which means just about anywhere in western Pennsylvania.

House Bill 586 was so drastic that it couldn't be lived with. In fact, both sides agree that as a practical measure it is already dead, for this reason.

Half of the 900,000 gas users in western Pennsylvania heat with gas. And today, after years of self-sufficiency, almost two-thirds of the area's gas has to be imported from the Southwest. The economics of both gas pipelines and distribution systems demand that winter loads that big be served from storage. For one thing, pipelines are very expensive and carrying charges are high. It would be uneconomical to build, say, an 1,800-mi. pipeline big enough to carry a peak day's demand. This puts the pressure on load factor;



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you have to operate at capacity all year round to make it pay, and the reserve has to be stored somewhere, near the market, to be pulled out fast at the drop of the temperature.

• **Dilemma**—This situation puts the Pennsylvania legislature in an almost impossible position on the proposed bill. Gas has to be stored; yet looked at emotionally, the bill would force the group, in effect, to vote for or against safety in coal mining.

Politically, the bill faces the GOP leadership with a vicious intraparty fight. Both the coal and the gas industries in Pennsylvania might reasonably be called Republican industries. And the Republican leadership already has problems enough outside the party. With only statistical control of the legislature, and with a rough statewide election coming up in 1954, it wants no open, economic struggle now among its own supporters.

• **Want Regulation**—Actually, the gas people are just as anxious as the coal operators to see some kind of regulation set up. As long as there is no law, gas people can go ahead and store their reserves. But they would like to see a proper drilling and plugging law, storage regulation, and eminent domain for storage put on the books. At least then, they would be able to work up to the limits prescribed, and the coal group's position would be a lot weaker.

For just as surely as western Pennsylvania must have underground gas storage, which inevitably will underlie coal, it can't afford anything but wholly safe gas storage. A mine disaster that could be traced directly to improper storage could do more than wreck a gas utility financially. It might easily end all storage, or strait-jacket it to the point of uselessness.

• **A Fight Either Way**—That means that whenever the legislature does get around to the problem, whether in 1953 or 1955, it is going to have to write a settlement that will let both industries operate economically, and still provide lots of storage. While feelings run as high as they do now, this will take considerable doing.

All this leaves a complicated situation at Harrisburg. The original coal operators' bill, too drastic to handle, is dead. Cooler heads in the coal industry have drawn up what they consider liberal amendments to it that are "regulatory rather than prohibitory." But gas operators say the amendments are only technically better. So there will be another fight, which the legislature can't afford, if they are ever introduced. This makes it appear that proper natural gas storage legislation will go over till 1955. By then, there will be more millions invested in storage pools. And the coal people will be that much closer to needing storage themselves.



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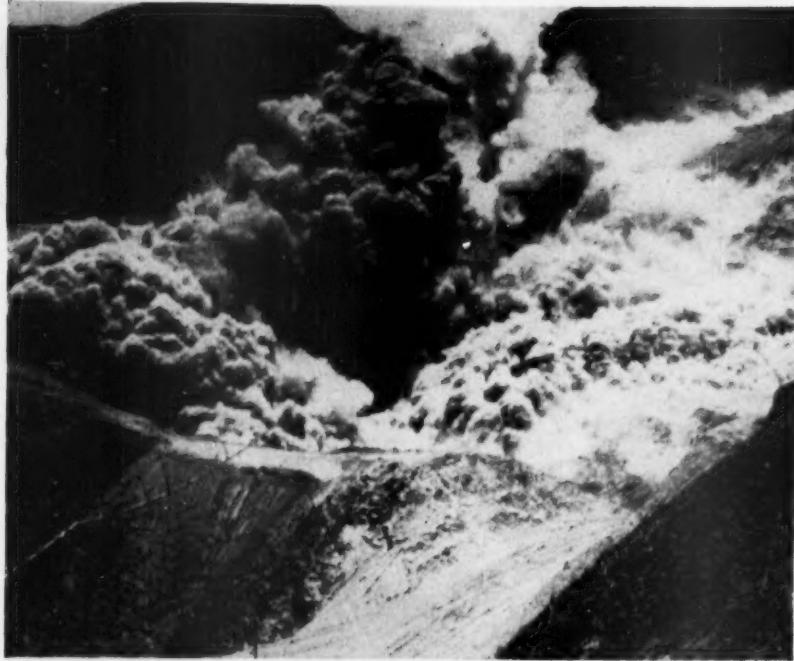
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Heir to CMP

Defense Materials System will confine allocations of steel, copper, aluminum to strictly defense users.

There's a new ingredient in Washington's alphabetical jargon: DMS (for the Defense Materials System). This is the government's new metals priority scheme, which will take effect July 1, when the more elaborate Controlled Materials Plan expires.

Although there's no authority on the books now for DMS, the Commerce Dept.'s National Production Authority has already issued two regulations outlining the operation of the system. It's assumed that Congress will extend the priorities and allocations provisions of the Defense Production Act. The Capehart mobilization bill, which the Senate Banking Committee reported favorably last week, contains that sort of provision.

• **Nondefense**—Basically, DMS machinery will be similar to CMP, with one big difference. Under CMP, steel, copper, and aluminum were allocated to all consumers—defense and civilian alike. Under DMS, nondefense consumers will be on their own in getting needed metals.

Here is how DMS will work:

Allotments will be made to manufacturers and builders on direct Defense Dept. or Atomic Energy Commission contract. They will also get preference ratings to buy necessary tools and components. Their priorities can be passed on to subcontractors and suppliers.

Steel, copper, and aluminum producers will be instructed to set aside specific tonnages for defense-rated business. The probable industrywide set-asides for third quarter: steel, 15%; copper, 25%; aluminum, 30%.

• **Supporting**—Priorities will also be issued to selected defense-supporting projects. But the government will be stingy in this regard. AEC or the Pentagon will have to certify specific companies of this type. Examples: an electric utility plant to power an atomic energy project, a machine-tool builder supplying an automotive equipment maker on military contract.

Industries like petroleum, electric utilities, and farm machinery objected to the decision to limit priorities. They wanted treatment on a par with military and atomic energy contractors. But the mobilization planners will try to keep DMS as simple as possible. They don't want to get bogged down setting up bands of essentiality for competing industries.

MARKETING

Cash Discounts: Still a Sore Spot

- Since World War II, a lot of manufacturers have decided it's wiser to drop them.
- But they have run into strong retailer resistance—especially in soft goods.
- Now the struggle seems likely to sharpen in the hard goods field as well.

A tradition has a way of growing in stature—if it's worth money to someone. That's the status of cash discounts, the rebates manufacturers offer customers for prompt payment of bills.

Right after World War II, when goods were tight, a lot of manufacturers of both soft and hard goods stopped offering cash discounts. Retailers balked, but until soft goods got plentiful they weren't in much of a bargaining position.

• **Warming Up**—Recently, the struggle to restore the discounts went into higher gear. Representatives of the National Retail Dry Goods Assn. met last month with the Clothing Manufacturers Assn. of the U. S. A., pushed for standardized cash discounts in the men's clothing field. The Clothing Manufacturers are considering it.

Meanwhile, with competition toughening in hard goods, it's a good bet that the same wrestling will start in that segment of industry. Hard goods manufacturers who dropped discounts after the war are certain to feel the pressure from customers who want to see the tradition reestablished.

• **Background**—A typical cash discount arrangement works like this: Manufacturer A ships a big batch of women's hosiery to Retailer Z. The terms on the \$1,000 sale are 2% in 10 days. That means if Retailer Z remits within the 10-day limit, he deducts 2%, writes a check for \$980. If he waits too long, the hosiery costs him the full \$1,000.

The cash discount practice has been a standard business operation since right after the Civil War. It was instituted to accomplish two things: (1) to eliminate bad debt losses during a period when merchants found themselves doing business with a lot of unknown firms; and (2) to provide ready cash for financing the seller's operations at a time when local banking facilities were often inadequate.

• **Changing Picture**—In the past few years, many manufacturers have come to the conclusion that the cash dis-

count is one cost they can eliminate in a hurry. They have simply changed their terms to "invoice price parity," which means payment of the full amount of an invoice when due. Naturally, this made customers unhappy, especially if no price concession followed. But in the years right after World War II, when retailers were struggling to get goods, there wasn't much they could say. Now, however, with suppliers hustling to get their products on retailers' shelves, the retailers are stiffening their stand.

Today, when a manufacturer tells customers they will no longer get the customary discount, he's met by a hot barrage of arguments against the move: points supplied the retailer by a trade group such as the National Retail Dry Goods Assn.

• **Case for Discounts**—One of NRDGA's arguments for keeping the cash discount is that a retailer who competes strongly, pricewise, with other merchants will increase his own volume and the volume of the manufacturer who supplies him. But the retailer needs a cushion against the losses he takes in this price competition. By selling off rapidly, and by paying his bills early, he earns discounts that provide the needed cushion.

A second point raised is that in many cases, in normal times, the retailer's earned discounts exceed his net profits. Without the discounts he goes in the hole.

Moreover, retailers prefer a discount to a concession in price equal to the amount of the discount. NRDGA says such a price concession would promptly be dissipated in competition. Here's what they mean: A retailer figures his markup before he deducts the discount. The hosiery retailer mentioned above operating, say, on a 50% markup, will price the \$1,000 lot of stockings at \$2,000, then pay the manufacturer \$980 for them. He takes in \$1,020. If the manufacturer offers a price concession instead of the discount, and

sells the lot for \$980, the retailer will still figure a 50% markup, and will sell the stockings for \$1,960. He gets back only \$980, instead of \$1,020.

• **Other Side**—A typical stand against cash discounts is taken by Ivan Hillman, of the Dravo Corp., Pittsburgh (Pa.) steel fabricator. Dravo is not a department store supplier, but the arguments pro and con are essentially the same no matter what type of goods are involved. Here are some of Hillman's points on the discount:

It's **outmoded** as a way for a manufacturer to borrow money. Nowadays he can virtually always borrow from his local bank on some basis less costly than the cash discount allowance.

It's a **misrepresentation**. It's a cost element that must be taken into account when the manufacturer's selling prices are set. It does not offer something for nothing.

It's **inflationary**. It is a cost factor that increases as the product passes through the successive stages from raw material to ultimate consumption. This shows up in the hosiery case. With the discount, the retailer made \$20 when he discounted 2% from the manufacturer's invoice, and he made another \$20 from the same factor when he figured his markup before taking the discount.

It's a **competitive weapon** as it is frequently used. Too often the cash discount is formulated with an eye to "outgifting" the competition, Hillman contends. Many businesses are selling their terms instead of their products or services. Hillman warns that this trading in terms may well be found illegal under the Robinson-Patman law, adds that it is certainly less sensible than a policy of meeting competition by lowering prices.

It's **unfair** to customers in that it fails to distinguish between customers who pay right after the credit period and those who take much more time. If he makes his payment on the eleventh day, the customer is penalized at a rate equivalent to an assessment of 36% annually. This, Hillman notes, is an exorbitant rental for the use of money.

It is interesting that both sides in this argument mention tradition. NRDGA's view is that the cash discount is a custom to be preserved, a measure of good relationships between buyers and sellers. Hillman feels it's a tradition that's outlived its usefulness to the business community.



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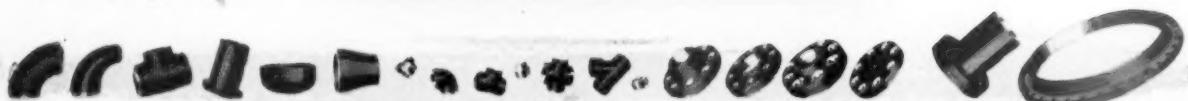
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Synthane is a laminated plastic of multiple virtues, which recommend it for many jobs in television.

Synthane is an excellent insulator, laminable with metal, hence, a good base for space-reducing "printed" circuits. Synthane is notable for low power factor, low moisture absorption, and ease of fabrication, three properties desirable for radio and television insulation. Synthane

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There may be a place for Synthane in your product. To find out more about the possibilities of Synthane for your purpose, write for the complete Synthane Catalog. Synthane Corporation, 1 River Road, Oaks, Pennsylvania.

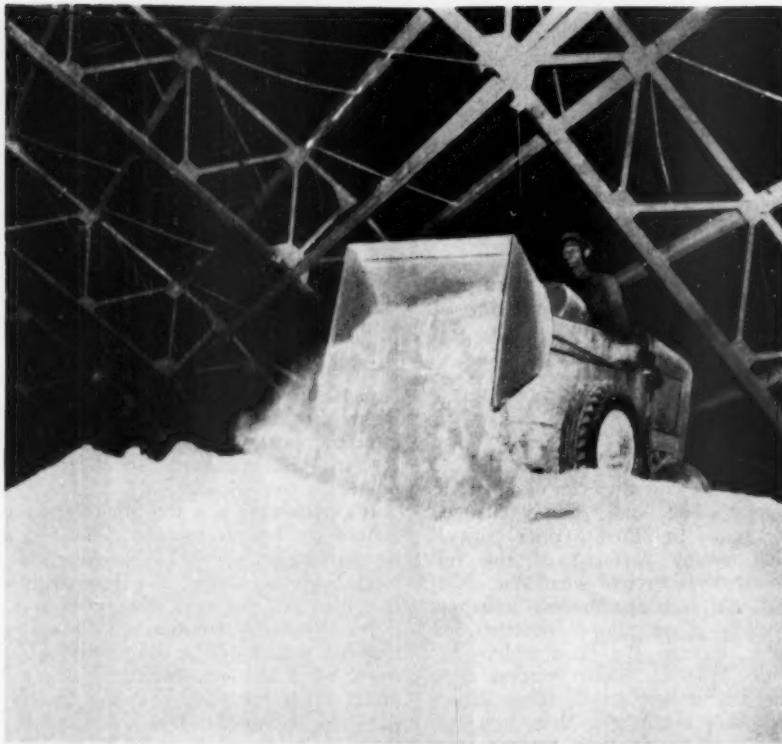


Synthane in Television . . .

- A—Television camera parts
- B—Television receiver printed circuits—metal foil on Synthane sheets
- C—Channel selector switch insulation

Synthane—one of industry's unseen essentials

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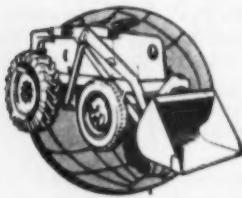


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PAYLOADER®

THE FRANK G. HOUGH CO. • Since 1920



The Lid Is On . . .

... more customers, as felt hat sales pick up. Among the causes: hard selling, Eisenhower's Homburg.

The men's felt hat business, which had been folding like a sat-on topper for 11 long years, began to stiffen last fall. And it has kept right on ever since.

The good news chirps in many voices. The Hat Research Foundation says manufacturers' shipments for the six months ending Nov. 1, 1952, were up 21.2% over the previous year.

John B. Stetson Co., the biggest U.S. hatter, claims a gain of 5%-10%. Second-ranking Hat Corp. of America says its best-selling Dobbs line has "definitely shown an increase." Bernard Salesky, president of Champ Hats, Inc., says spring business is up at least 22%. Frank H. Lee Co., maker of Lee and Disney hats, talks of a 20% jump.

• **Homburgs**—Plenty of reasons are advanced for why things are getting better in the felt hat trade. One is that retailers have finally got over their post-Korea megrims and are settling down to ordering. Then there is the matter of the Eisenhower inaugural Homburg. That sartorial iconoclasm really got Homburgs, and by extension all hats, into the public eye.

Some hatmakers hand the credit to hard selling, to style changes, even to an awakening of fashion consciousness in American males.

• **Double Attack**—One thing is definitely sure: The industry has launched twin offensives against those hated foes, the nonwearers-at-all of hats, and the not-enough wearers.

The nonwearers are the tougher nut, and the industry is being a little half-hearted in its efforts to capture them. Generally, the industry figures this character owns a hat, but wears it only during cloudbursts. What makes the nonwearer really tough to approach is that he thinks his bare-patedness is the height of fashion.

• **Multiple Lids**—The not-enough wearer is a somewhat softer touch. The industry is trying briskly to sell him on the joys of the occasional hat, and of hat collecting generally. Emanuel Korchnoy, sales manager of Lee, says, "We've got to teach the customers the many purposes a hat serves." Korchnoy likes to pounce on a one-hat man and sell him a city hat, a country hat, a squash-in-the-pocket hat for rain, a golfing hat. In a happily statistical mood, Korchnoy says that if 20% of the nation's haberdashery buyers could each be sold one extra hat a year, the industry's sales would go up 33%.



TAKE HOME PURCHASES, which cut costs, save money for the customer, when . . .

in Virginia

this was merely a case of converting a conventional greenhouse and retail florist to self-service. In contrast, Hecht Arcadian Gardens was planned down to the last square inch for supermarket selling. The building (16,000 sq. ft. of selling space, plus the same amount of space in the basement) and fixtures cost \$278,000, says William Harris, vice-president of Goldfarb Flower Shops. In its first year it expects to do easily \$850,000 worth of business; next year it should do about \$1-million. And that, Harris figures, is just a start.

• **From Seeds to Trees**—Whether you're a weekend putter or a full-time hobbyist, Hecht Arcadian Gardens aims to supply all you need. It carries potted plants, cut flowers, fertilizer, garden tools, rose bushes, trees, seeds for lawn and garden, lawn mowers, bulbs, vases, shadow boxes, and flower pots. Peter Raben, buyer for Goldfarb Flower Shops, makes an offhand guess that it stocks up to 10,000 items and

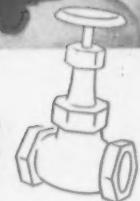
maintains a running inventory of about \$100,000.

Hecht Arcadian Gardens works on the supermarket theory of volume sales at low margins. It undersells most retail flower shops by about 35%, Harris says. You can get a dozen medium-stemmed roses for \$1.50; an orchid for the same price; five rose bushes for \$3 up; 20 lily bulbs for 98¢ that elsewhere sell six for \$1.25. Beside volume, the supermarket has another advantage: Arcadian Gardens, Inc., is a plant grower in its own right. The supermarket also buys from Italy, France, England, Holland, Belgium, Turkey, Africa, and the Orient.

• **Trimming—Repackaging**—basic to any supermarket operation—works here, too. Every plant is packaged, complete with planting instructions and guarantee. This helps in two ways. It cuts returns (actually they amount to $\frac{1}{2}$ of 1%) because it assures the customer that he's getting red tulips if he wants red tulips. It also steps up the individual purchase: A customer might not intend to buy as many as five rose



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\$500,000,000. That's what the boll weevil cost America in 1950. This is probably the most destructive of all insect pests, and does such a thorough job of ruining cotton crops that it has forced large agricultural areas to abandon the growing of cotton altogether. Today, we have a new and effective weapon against boll weevils, the insecticide BHC (benzene hexachloride).

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BUSINESS BLOOMS at Hecht Co. Arcadian Gardens flower super with all the boons of supermarket selling, such as . . .

Selling Flowers the Supermarket Way



SELLING RAKES and all kind of gardening supplies rounds out the flower business.

The first supermarket designed solely to sell flowers has turned up on the shopping scene. The flower super, called the Hecht Co., Arcadian Gardens, is blooming at the company's Parkington shopping center in Arlington, Va.

• **Tried and True**—Parent company of this flower mart is M. Goldfarb—My Florist, Inc., usually called "Goldfarb Flower Shops, established 1889." Arcadian Gardens, Inc., wholly owned subsidiary, operates huge greenhouses in Scarboro-on-the-Hudson, N. Y., where it grows, tests, and packages garden merchandise. When Hecht opened its suburban center near Washington, D. C., it invited Goldfarb Flower Shops—which operates a number of retail units—to set up and operate a retail department there, built to the flower company's specifications, and leased from Hecht.

Goldfarb had already tried out a supermarket for flowers at the City of Glass, in Farmingdale, N. Y. However,



Photo Courtesy Mixermobile Manufacturers, Portland, Oregon

180 horsepower Scoopmobile loads 4319 yards of wet sand in 31 hours!

No stranger to hard work, this loader. Each time it bends down, a hydraulically operated loading bucket picks up, carries and loads as much as two cubic yards of dirt, rock or sand. Four-wheel planetary gear drive and four-wheel power steering are combined for plenty of power, amazing speed and maneuverability. Five-speed transmission enables top performance under any conditions of terrain.

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"...retired military brass offers a fine pool of customers . . ."

FLOWERS starts on p. 126

bushes, but when he sees them boxed all together, he'll pay the price—just under \$5.00—and take the lot.

By encouraging customers to take home their purchases, the market keeps costs down. The Hecht-Parkington's parking lot will take care of 3,800 cars, with a 5¢ parking fee for three hours. Delivery costs may add anywhere from 40¢ to \$1.50 to the cost of an order, says Raben.

Another cost-cutter and sales-getter is the charge account business, which uses the Hecht Co.'s charge plates. Management thinks that this service alone brings in maybe 25% of the customers. And the charge clerk can handle about eight times the customers a cash clerk can take care of in the same period.

- **Familiar Face**—On the shop floor, the market resembles any other supermarket, with customers pushing their carts and winding up at the checkout counter. There's a minimum of sales personnel—only a couple of floor supervisors to explain which plants are hardy, or how to plant a dogwood tree. Two girls handle the cut flower department; three cashiers check out. All told, employment averages about 40 people, including stockroom boys and trained greenhouse gardeners.

During the week, it's the women who do most of the buying. Weekends the men take over, says manager Bradley Steinbach. Washington, with its host of retired military brass, offers a fine pool of customers for the male hobby market.

- **Always in Season**—Because the merchandise is so varied, it's a year-round business. From February through July, people are looking for summer plants. During the summer, they're after insecticides, tools, trellises, garden equipment, and lawn chemicals. In the fall, bushes, bulbs, plants come into their own again. During the winter, there's a big demand for flowering plants and cut flowers.

The supermarket idea has paid off so well that Goldfarb Flower Shops plans four more in the next three years—in New Jersey, Westchester, Long Island, and Connecticut; all will be tied up with a department store, as Hecht Arcadian Gardens is. It also plans a big retail unit in connection with its greenhouses at Scarborough-on-the-Hudson.

Besides its retail stores, Goldfarb Flower Shops does a considerable mail order and wholesale business—for a grand total of around \$8.5-million.

MARKETING BRIEFS

Free catalog for sale: Sears, Roebuck & Co. is trying out a junior, 52-page catalog, listing 716 most popular sellers, on Chicago newsstands. Price: 10¢. Regular customers in Chicago, Boston, Philadelphia, Minneapolis, and Seattle get the catalog free. Newsstands sales may reach some people Sears might otherwise miss, the company feels.

Soil conditioner competition brought disaster on Henry A. Dreer, Inc. (BW-Jan. 31 '53, p43). The venerable company was declared bankrupt in the U. S. District Court in Philadelphia. Young (25-year-old) president Richard Snelling explained, "We didn't get the \$110,000 which was promised, and we tried too hard to expand to keep ahead of our competitors."

Nine theater circuits are getting complete three-dimensional projection and stereophonic sound equipment from Radio Corp. of America. The circuits expect to have about 20 installations under way next month, RCA reports.

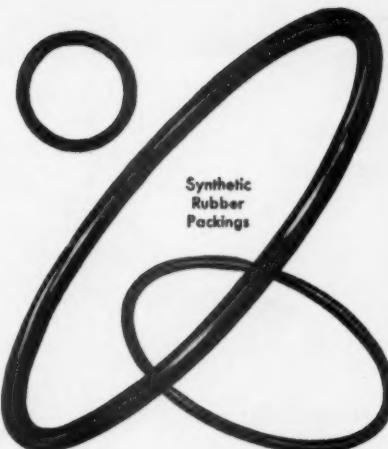
New branches are planned by three major stores. Marshall Field and Gimbel Bros. are both moving into the \$15-million Westgate shopping center to be built in Milwaukee. R. H. Macy will have a new branch on the West Coast—its fourth in the area—at Bay Fair, East Oakland, Calif.

House-swapping promotion has a new angle. Standard Building Co. advertises in the San Francisco Chronicle that you pay no income tax on your profits when you trade "your old outmoded home for a beautiful new Sunstream home."

Synthetic ice cream made from vegetable and animal fats (BW-Jan. 31 '53, p50) is illegal in Alabama, the state attorney general's office ruled. "A frozen food product resembling ice cream but made without milk fat cannot be sold in the state even though it is plainly labeled as a substitute," the ruling stated.

TV owners increased 40% in 1952, Market Research Corp. of America reports. In January, 1953, 44% of all U. S. homes had television, the company finds.

Classical phonograph records are almost as popular as popular records, the New York Times reports. RCA Victor says its classics account for nearly 40% of its record sales: Five years ago, they made up less than 20%. Columbia Records says its classical sales are just as strong.



**Synthetic
Rubber
Packings**



**Leather
Oil Seals**



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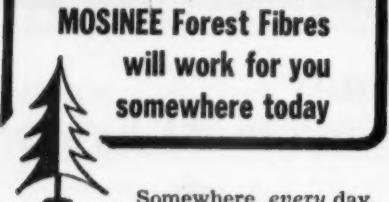
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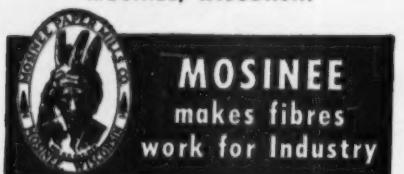
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RECORDING of the New Testament is first step in Audio Book's plan for marketing . . .

Talking Books at Popular Prices

Company hopes that it will have a best seller that will persuade book companies to take over, act as publishers.

Not a record, a book. That's what Audio Book Co., a brand new concern, calls its "edition" of the King James version of the New Testament (above). The talking book will go on sale in a few weeks at Gimbel's and Macy's—Herald Square, New York, and in the Broadway Hale Stores on the West Coast. Retail price: \$20.

Audio Book hopes that its Bible is a starter in a development that may revolutionize the publishing business. It plans to follow the New Testament with the Iliad, and eventually with a wide line of talking books. It believes there's a good potential market—not only among the blind, but among those whose eyes aren't what they used to be. There's another market it hopes to tap—the group that is allergic to reading. "We tried out some Moby Dick on people who had never heard of the book," says Raymond Tierstein, business manager. "We were amazed at how closely they listened."

• **Popular Price**—The Library of Congress does provide recorded books for the blind. But the cost of a conventionally recorded book would be prohibitive to the general public. Audio Book aims to get its prices down to the printed book level. Given any sizable volume, Tierstein says, it could halve the current price of the New Testament. It sees no reason why it couldn't record an abridged Mickey Spillane, say, on

a single disk, sell it for a quarter.

• **Three Partners**—Audio Book is a Los Angeles concern with three engineer partners. Beside Tierstein, there are J. L. D. Morrison, who designs record changers—and who put up the money for the new company—and C. C. McDonald, formerly with Decca.

McDonald spent a year and a half developing a record that could be made economically to do the job. He came up with the small (7-in.) vinyl record, operating at 16 rpm. Since the speed is slower than the conventional record player will run, the company also sells a simple adapter. This converts a 33-rpm. turntable to a 16-rpm. player. The adapter sells for \$2.50.

• **Books—or Records?**—Book publishers are watching the development with lively interest—some with a lively horror. Audio Book frankly doesn't want to stay in the publishing business. It would rather stick to the job it knows—recording books—and let a book publisher choose, edit, and distribute them.

The new firm has several nibbles from bona fide publishers. Meanwhile, it's in the publishing business. Its first edition of the New Testament was 5,000 copies, but it can step up the pace to 30,000 a month.

How to sell the talking books is a problem. Macy's hasn't decided whether to put them in the book department or the record department.

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ity of his bags. And he got these advantages without any increase in his adhesive cost per bag! DAREX Resin Emulsion Adhesives make flexible seams. They will not crystallize or crack. They can be used on any stock, from porous to highly sized. But . . . why not test these advantages yourself, in your plant, on your multi-wall or other specialty bags? Write on your letterhead for a generous sample, today!

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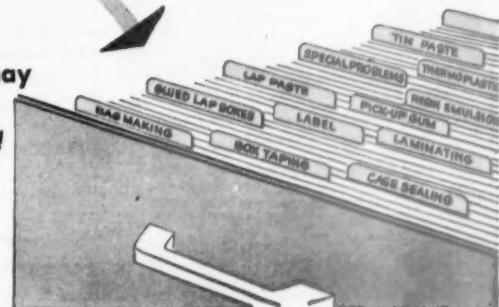
The solution
to YOUR
adhesives
problem may
be in our
files NOW!



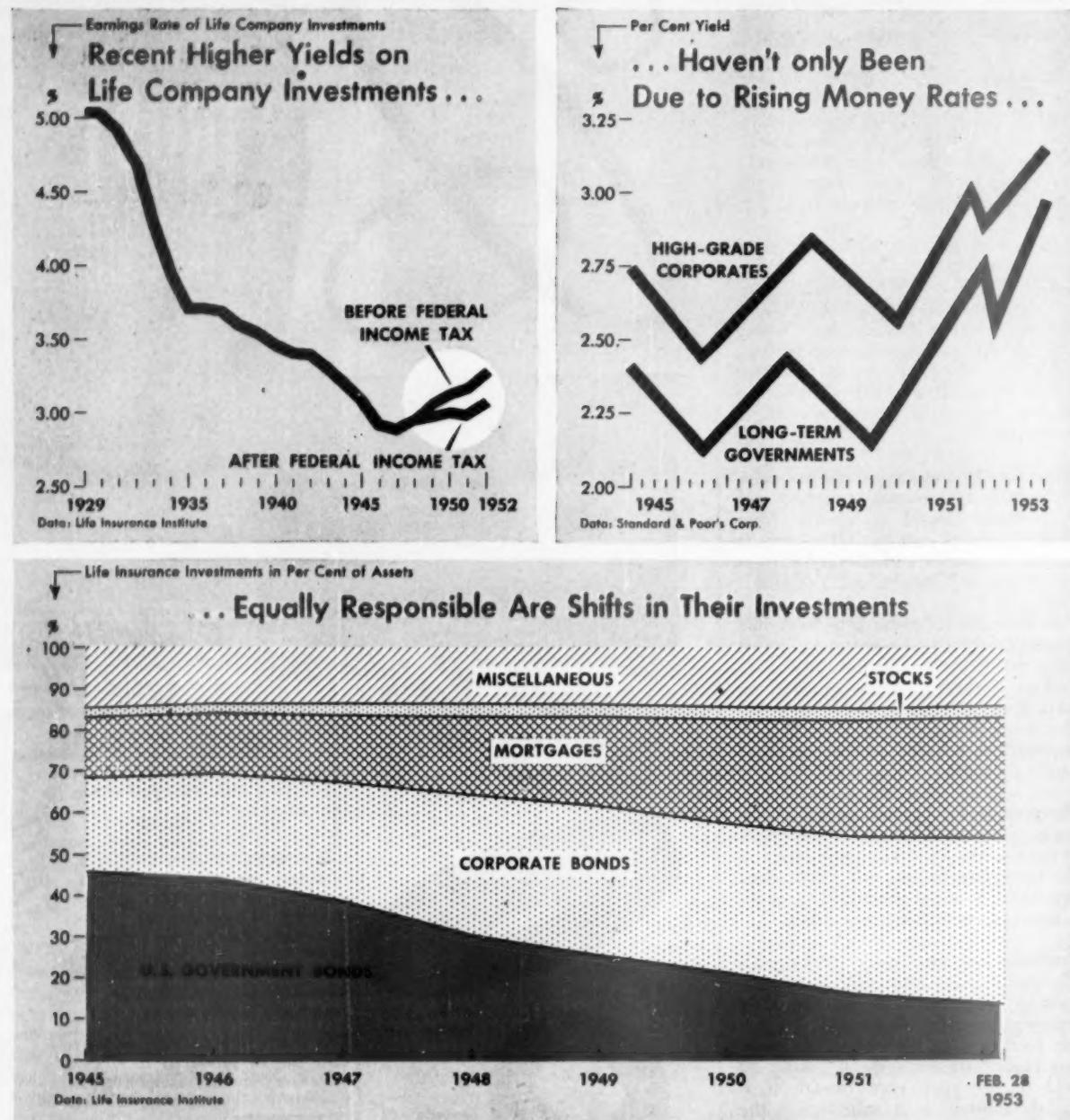
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FINANCE



Higher Life Earnings: Partly Illusion

"Invested life insurance funds earned a higher rate of interest in 1952 than in any year since 1943."

The Institute of Life Insurance announced last week that last year's net rate of interest averaged out to 3.28% on policyholder reserves, compared with 1951's 3.18%. The 1952 figure was one-seventh better than the all-time low of 2.88% in 1947.

In a sense, much of the rise has

been a gift: higher money rates generally, especially since the Federal Reserve System stopped pegging the government bond market two years ago.

• **Skillful**—Money rates can't take all the credit, though. The investment acumen of the life companies has been just as important. Money rates have been moving up for some time, but the life companies' investment income would have been considerably smaller if

the portfolio managers hadn't quickly resumed their managerial functions after World War II.

Obviously, little money management was possible during the war. Life insurance companies—the biggest nongovernmental reservoir of investment funds—were called on to play a leading role in war financing.

The figures show how well they did it. By the end of 1945, their holdings

At least one shrewd "outside" insurance expert seems to hold that view now. That's Shelby Cullom Davis, former deputy superintendent of New York's Insurance Dept. And now head of the New York Stock Exchange house that bears his name. Here's what Davis has to say in the 1952 edition of a long-maintained, privately circulated annual study of the investments of the largest U.S. life companies:

"Last year liquidation of government bonds eased in as many as 57 of the companies," says Davis. "A year earlier there were 22 such companies. Thus the cycle of wholesale conversion of governments into mortgages and bonds, begun after World War II, seems gradually drawing to a close."

• **What's Next?**—Davis isn't sure whether this means the trade will buy long-term governments in quantity. "While 57 of the largest . . . companies regarded governments more favorably last year, from the standpoint of assets . . . they . . . represented only \$12.8-billion, less than 20% of total U.S. life assets." Thus "it remains to be seen how many long-term governments can be successfully placed in life company portfolios this year in view of already existing commitments" covering future purchases of both mortgages and corporate debt obligations.

Davis may have his fingers crossed a bit too tightly. At the end of February, the trade's government bond holdings were up slightly, reaching 13.9% of the total \$73.9-billion assets, compared with 13.7 of the \$73.2-billion total reported at the end of 1952. And the Treasury seems to be confident that the life companies will absorb a good slug of the \$1-billion of long-term new-money 3½s offered in its current financing operation (below).

However, there is one factor to keep in mind in this connection. Although the current Treasury offering provides a higher yield, the insurance companies must still keep on searching for investments that will sharply increase the over-all return of their portfolios.

• **Tax Angle**—The trade's investment income, remember, is subject to a federal income tax. Over the past decade, the trade has not been able to translate all of its increased earnings rate into net. Up to now, the government has collected about two-thirds of all the gains in pretax rate of return that the group has shown since 1948. As the chart on page 132 shows, last year's effective rate wasn't really 3.28% after taxes; it was only 3.07%, which means that 1952 wasn't really so big a jump over "poor-record" 1947 as it may have looked at first glance.

U.S. Tries Long-Term Issue

Treasury officials predict sellout on new bond issue. It has the longest terms and highest interest rate in years.

The Eisenhower Administration took its first major step in long-term financing of the national debt this week—a debt which now totals \$264-billion. And it was in the direction expected (BW—Apr. 11 '53, p52).

The government opened the subscription books for around \$2-billion of Treasury 30-year 3½s. It was the first offering of a marketable long-term U.S. bond issue since the 1945 Victory Loan; the longest-term issue to be offered since 1941. And, it was the first Treasury issue in 20 years to bear an interest rate as high as 3½%.

• **An Exchange**—The new bonds carry a May 1, 1953, date and mature June 15, 1983. They may, however, be redeemed as early as 1978.

In all, around \$1-billion will be offered for cash sale. And holders of \$1.1-billion of Series F and G savings bonds maturing from May through December of this year (which yield about 2.5%) are given the right to exchange their bonds for the new 30-year 3½s—on a par-for-par basis, with an adjustment in interest.

• **Hopeful**—Treasury officials expect the new bonds to be snapped up. The

issue, they point out, was designed to appeal to life insurance companies, savings banks, pension funds, and other institutional investors.

Investors who buy the new bonds can pay for them over a three-month period, provided that payments are completed by July 31.

Commercial banks are permitted to buy the new bonds for their own accounts in amounts up to 5% of their time deposits last Dec. 31.

• **More to Come**—The Treasury's financing plans call for borrowing another \$1-billion of new money to meet cash needs between now and June 30. This will be done by adding \$200-million more than needed to refund maturing issues to subsequent weekly 91-day bill offerings.

When plans for the new 3½s were announced last week, the government bond market's reaction was to turn slightly easier, with the longer-term 2½s declining fractions. But bond men said there would be no true test of the effect of the new issue on the prices of Federal issues until the 3½s themselves have reached the market and been traded.

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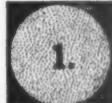


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of Treasury bonds had swelled to \$20.6-billion; that was 45.9% of assets. Six years earlier the figures had been \$5.4-billion and 18.4%.

• **The Switch**—With the war over, the life companies lost no time in resuming their normal function of supplying the capital needs of business, industry, and other segments of the civilian economy. This has wrought drastic changes in the insurance portfolios. The trade has not only diverted its "cash flow" (the net increase in assets plus accruals from mortgage amortization and bond maturities) into civilian investment; it has also persistently switched out of its government holdings.

As a result, life company holdings of Treasuries had slipped below \$10.3-billion, 13.9% of assets, at the end of February.

Conversely, holdings of corporate bonds have almost tripled since 1945. At the end of February they were close to \$28.6-billion, or 40.1% of assets. The equivalent figures for 1945 were \$10-billion and 22.5%.

Mortgage holdings have advanced almost as spectacularly, with a February mark of \$21.5-billion, compared with 1945's \$6.6-billion. In percentages, mortgages were up from 15% to 29.1%.

• **Reaction**—The drastic switching after the war is no surprise. History shows that life company holdings are always determined by what is going on, by whether the nation is strained by war or depression, or is enjoying at least surface calm. They have always been big buyers when Treasury offerings are heavy, and sellers when the emergency is ended.

It's true that some people think the insurance companies have displayed unnecessary zeal of late in shifting out of Treasuries into better-paying corporate obligations. But the point is moot. And no one can deny that there have been some very cogent reasons behind the liquidation of the government paper.

A big reason—but not the only one—is the trade's dire need for a higher return.

If the trade had sat tight on its governments, and merely doled out new money, it could not have met the demands of nongovernmental borrowers after the war. It is doubtful that the housing shortage would have been eased. Inflation might have been worse if the life companies hadn't put up billions to help expand industry's productive capacity.

• **Slowing Down**—From now on, the shrinkage of government holdings is likely to be more gradual. Some time back, observers thought many companies were "reaching a point of portfolio balance" (BW-Dec. 22 '51, p78).

THE MARKETS

"Peace Scare" Victims: a Sampling

Common Stock	MAR. 28 LEVEL	PRICE RANGE SINCE HIGH	LAST	IN \$	IN %	DECLINE
Glen Martin	\$17.37	\$16.62	\$13.50	\$13.07	\$3.50	20.2%
Kobbins Mfg.	24.50	21.00	19.42	20.00	4.50	18.4%
Western Maryland	31.75	31.00	26.00	27.25	4.50	15.7%
Boeing Airplane	47.25	45.25	39.25*	40.00	7.25	15.3%
20th Century-Fax	18.32	18.50	15.50	15.87	2.75	14.8%
Lackheed Aircraft	26.00	24.75	21.00*	22.25	3.75	14.4%
Cornell Dubilier	26.37	26.00	22.12	22.62	3.75	14.2%
Bell Aircraft	25.00	24.62	20.12*	21.62	3.37	13.3%
General Dynamics	45.62	44.75	38.25*	39.62	6.00	13.1%
Western Pacific	66.87	66.00	56.00*	58.37	8.50	12.7%
Bendix Aviation	67.50	66.50	58.50*	59.50	8.00	11.9%
United Aircraft	38.25	37.12	32.37*	33.75	4.50	11.8%
Thompson Products	61.00	60.00	52.50*	54.00	7.00	11.5%
Cincinnati Milling Machine	51.00	50.50	44.50	45.25	5.75	11.3%
Texas P. L. Trust	148.50	147.00	133.00*	133.00	15.50	10.4%
Sunbeam Corp.	33.25	32.75	29.50*	29.50	3.75	10.2%
Dana Corp.	38.87	38.50	33.62*	35.00	3.67	10.0%
Reynolds Metals	55.00	54.00	48.75	49.62	5.37	9.8%
Douglas Aircraft	68.37	66.75	60.25*	61.75	6.62	9.7%
Pure Oil	60.00	59.00	54.00*	54.38	5.62	9.4%
Climax Molybdenum	42.50	41.75	36.87	38.50	4.00	9.4%
Sperry Corp.	47.37	46.25	41.12	43.00	4.37	9.2%
Chicago Pneumatic Tool	59.50	59.00	53.50	54.25	5.25	8.8%
Timken Roller Bearing	46.75	46.37	42.62*	42.62	4.12	8.8%
Phillips Petroleum	68.50	67.50	62.00	62.62	5.67	8.6%
Minneapolis-Honeywell	61.50	61.00	56.50	56.50	5.00	8.1%
B. F. Goodrich	74.25	73.87	68.25*	68.25	6.00	8.1%
Lukens Steel	44.12	44.37	39.00*	40.62	3.50	8.0%
Carpenter Steel	47.12	46.75	42.00*	43.37	3.75	8.0%
Panhandle Eastern Pipe Line	86.00	85.50	78.00	79.25	6.75	7.8%
Atlantic Coast Line	116.25	115.25	105.25*	107.50	8.75	7.5%
United Carbon	58.50	58.00	53.25*	54.25	4.25	7.3%
Southern Ry.	90.12	88.25	81.50	83.75	6.37	7.1%
Texas Co.	57.87	57.50	53.50	53.75	4.12	7.1%
Container Corp.	43.87	43.87	39.12*	40.75	3.12	7.1%

* Nov. 1953 low.

Jittery Selling Tapers Off

Bulls think steadyng of market indicates faith in peacetime economy. Bears say it's just the calmness that follows sharp drops.

Are more and more traders and investors beginning to feel that the nation might be able to maintain a pretty satisfactory rate of business activity in a peacetime economy—or more of a peacetime economy than we have enjoyed in some time?

Wall Street's bulls are saying so. And this week saw some signs that they might well be right.

For one thing, there have been no waves of jittery selling in the stock market for some days now. What's more, many stocks have actually been able to rally—some quite sharply—from the lows

they hit at the first news of the "peace scare."

• **Aftermath**—Obviously, bearish quarters poohpooh such views. What we are seeing, they claim, is the calmness that often occurs after the market experiences a sharp price drop, such as it did in the last fortnight.

Since the Communists in Korea made their pre-Easter proposals for peace talk and PW exchange, Standard & Poor's daily industrial index has declined 5.5%, the rails 7.2%, and the utilities 3.6%. That left them at the start of this week at virtually their low-

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Pipeline Plan

Proposed purchase of interest in prominent oil-gas producer may sweeten profits for pipeline company.

Tennessee Gas Transmission Co., which moves Texas natural gas by pipeline from the Rio Grande Valley to points as far north as Ohio, West Virginia, New York, and Massachusetts, is well on the way to building up its own major source of oil and gas.

Tennessee Gas president, Gardiner Symonds, has just disclosed that his company is planning to purchase a 25% interest in American Republics Corp., prominent South and Southwest oil and gas producer. The plan calls for the eventual merging of American Republics with Tennessee Production Co., which is Tennessee Gas' present producing company.

• **Switchover**—A 25% interest in American Republics would cost Tennessee Gas close to \$25-million. Under the plan, Tennessee Gas would buy 375,000 American Republics shares (1.5-million outstanding). To start the ball rolling, Barber Oil Corp. and several other stockholders who own close to half of American Republics' stock have agreed to sell Tennessee Gas 176,000 shares, or 25% of their American Republics holdings at \$65 a share. Tennessee Gas will offer to buy 25% of the shares of all other American Republics stockholders at the same price.

Last week Tennessee Gas filed with the Securities & Exchange Commission a registration statement covering sale of 1-million additional shares of its common. It would use the proceeds to buy the American Republics stock.

• **Well Planned**—Tennessee Gas has been moving in the direction of building up Tennessee Production for some time. Last year Tennessee Production laid out \$12-million to buy York & Harper, Inc., a West Texas oil producer, and to acquire the assets of Del Rey Petroleum Co.

A good oil and gas production company is a juicy plum for Tennessee Gas, for this reason. Its rates and profits are tightly regulated. But an oil and gas producing company has no such regulation to contend with and could help sweeten up Tennessee Gas' profits, at the same time broadening the company's gas reserves.

• **A Good Return**—For those who bought American Republics shares a few years ago when they were selling in the \$10-\$30 range, the Tennessee deal will mean handsome profits. Of Barber Oil's 482,100 American Republics shares (nearly 33% of stock

outstanding), 200,000 were purchased directly from the company in 1947 at \$23 a share. The holder who bought at such an opportune time as Barber, therefore, has an opportunity to get his original investment back by selling just a part of his American Republics holdings.

No difficulty is anticipated in getting the 66 2/3% approval from Tennessee Production and American Republics holders required for the merger.

Auto Insurance Rates Slated to Drop

There were straws in the wind this week indicating a reduction in auto insurance rates is in the making.

The Mutual Insurance Rating Bureau filed new schedules in 11 mid-western and western states calling for reductions of (1) 25% in rates for adults who drive less than 7,500 mi. yearly, and (2) up to 20% for some families with drivers under 25 years of age. Insurance for young drivers without family ties, on the other hand, would cost up to 30% more if the schedules are approved.

• **New York Picture**—Some relief eventually is expected for New Yorkers, whose rates, boosted seven times since 1946, are highest in the U.S.

The string of hikes came about largely because more cars on the road increased collisions, and repairs and replacement parts zoomed to levels double prewar or more.

FINANCE BRIEFS

A reduction in brokerage fees on all transactions under \$400, on some under \$1,200 and on those involving 1,000 shares or more is to be weighed by New York Stock Exchange governors May 21. Charges on other transactions would be hiked to expand member firms' revenues by 12 1/2%.

Changes in the Mahaffie act to permit railway reorganization plans to become effective with approval of only 66 2/3% of each security class have been approved by the Senate Commerce Committee. At present, 75% is required.

The Maryland legislature, for the second year in a row, approved a 15% cut in individual income taxes. The rate is 2% on wages and on the first \$500 of investment income; on investment income above \$500, the tax is 5%. Returns filed last week calculated the tax, then knocked off 15%. (In a similar deal, New Yorkers have lately been required to pay only 90% of their state tax.)



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est levels since the November election.

As the table, page 137, indicates, moreover, it's easy these days to dig up "peace scare" victims whose losses range upward from 7% to as much as 20.2%.

True enough, you won't find food, merchandise, and other industries enjoying stable peacetime markets on such a list. But there are few groups these days that aren't "war stocks" in one phase or another of their operations. That's why, though the aircraft stocks show the sharpest drops, you'll find such other industries as the railroads,

metals, oils, and rubbers well up in front.

- **Sincerity**—Where do we go from here? Bull and bear are unanimous that much depends on the sincerity of Moscow in its peace proposals. But from there on they split sharply.

One thing seems logical to expect: a further price slide, should a Korean truce actually develop. It's anybody's guess how long it may take to get the answer. Some sort of technical rally could be in the offing pending receipt of this word. Many think the market is now in an oversold position.

SEC Looks the Other Way

Public utility holding companies may find it easier from now on to turn directly to competitive bidding in selling new issues of common stock, instead of giving shareholders first crack.

The Securities & Exchange Commission hasn't said so directly, but a new liberal approach on shareholder rights is indicated in two recent public utility cases in which SEC staffers informally approved new financing plans to sell whole issues of common through competitive bidding.

Until now, SEC required regulated holding companies to extend pre-emptive rights to shareholders. Usually it means stockholders can get an 8% to 10% discount on the new shares.

- **Test Cases**—The full five-man commission will get a chance to go on record, probably in a month or two, when it acts formally on Columbia Gas System's application for authorization to sell 1.7-million shares at competitive bidding. So far, there has been no hint of opposition to relaxing the pre-emptive rights requirement. But anyone who wants to still has time to demand a hearing on the Columbia application.

If no one does, the commission is expected to go along with its staff and approve the application, along with another soon to be filed by American Gas & Electric Co. for 800,000 additional shares of common.

- **No Carte Blanche**—There are two places on the commission that could be filled by the new Administration, and there is always a chance that the new members might have a different idea. But relaxation of the rights requirement would seem to fit in generally with President Eisenhower's stated policy of easing government controls as a means of spurring business activity.

That does not mean that SEC contemplates doing away with pre-emptive rights altogether. Far from it. Holding companies will still have to give valid reasons for shifting directly to competitive bidding. It means, simply, that SEC is more in the mood to accept these reasons than it has been.

- **Makes Sense**—The holding companies, themselves, have some good reasons for wanting a less stringent policy.

- They can make the offering over a shorter period, thereby stabilizing the selling price. Under pre-emptive rights, the sale has to be open 15 days, sometimes causing wide fluctuation in the selling price of the stock.

- Sale at competitive bidding tends to expand the list of security holders, giving the company a wider base of financial support.

- **In the Offing**—SEC has been considering a more liberal policy on pre-emptive rights for some months. One reason is this. To finance construction for their big expansion programs, the utilities have had to make frequent new common stock issues. They have had to go to their stockholders time and again to sell additional stock. In time, the stockholders get reluctant to pick up the new shares, if for no other reason than they feel they have enough of one holding company in their portfolios.

As shareholders became slower to exercise their pre-emptive rights, several companies have had to seek SEC approval to resort directly to competitive bidding. Results of some of these recent offerings helped convince SEC that it is time to try waiving pre-emptive rights in selected cases.

- **Streamlining**—SEC has required public utility holding companies to extend the rights, except in unusual cases, ever since it took over regulation of these companies in 1935. In the investigation that led to the Public Utility Holding Company Act of 1935, widespread issuing of new stock to "insiders" was exposed. The pre-emptive rights rule was considered one way to curb the abuse.

Many states still uphold pre-emptive rights in the sale of stock. SEC, however, has sponsored a streamlined provision that requires the rights except where the new stock issue is sold for cash through underwriters. And several states have adopted this method in regulating public utility companies.

State Bank and the West Irving State Bank, both of Chicago, and the First State Bank of suburban Elmwood Park. All are neighborhood-type commercial banks that maintain checking and savings deposits and safe-deposit boxes. The three are all headed by Henry J. Beutel as president and board chairman; they also have other officers and directors in common. Together, they have 40,000 depositors and \$42-million in deposits.

• **Reasons**—Attorneys for the banks say they have been closed because the state auditor feels they own too much discount paper—assets based on the banks' purchases of contracts made by loan companies.

Hodge says the action was taken "because it appears there may be violations of the Illinois Banking Act." He adds, though, that he is confident "no one will lose a penny." Depositors, he says, will be able to get their funds within two weeks.

One sidelight on the affair: Not long ago, controlling interest in two of the three banks was bought by Bankers Discount Corp., of Dallas.

Town for Pensioners

SEATTLE—About 30 years ago Long-Bell Lumber Co. of Kansas City, Mo., moved into Cowlitz County, in southwestern Washington, and started logging operations. To house its workers, it built a town on the edge of the forest. The town—Ryderwood—now has 400 dwelling units, a hotel, a church, a recreation center, and stores.

Long-Bell finished logging in the area a few weeks ago. All but about 70 families moved out of Ryderwood. And last week, a real estate development company called Senior Estates, Inc., bought the town lock, stock, and barrel.

• **Plans**—Senior Estates intends to turn Ryderwood into a "paradise for pensioners." The company plans a \$170,000 renovation and cleanup program. It will sell the homes to people aged 65 or over who are living on regular monthly pensions of \$130 to \$250.

The Dream Bridge

DETROIT—Michigan's dream of joining its two peninsulas with a bridge (BW—Oct. 25 '52, p150) seems unlikely to become more than just that—a dream. The bond market doesn't seem to be interested in financing the project, and the Michigan legislature has shown unwillingness to appropriate funds to maintain the bridge. The project has stopped cold.

• **The Dream**—It was a brave dream, and at one point seemed headed for realization. According to the blueprints—which cost taxpayers some \$175,000—the bridge was to have run from

Mackinaw City on the Lower Peninsula to St. Ignace on the Upper Peninsula. It would have been about 5 miles long, and would have cost about \$100-million.

• **Objections**—Financial interests have rejected the proposition on two counts:

• They want to know how a bridge can make money where a ferry line can't. The state-operated ferry line now shuttling across the Straits of Mackinac has been losing money at the rate of about \$500,000 a year for the last four years.

• Prospective investors originally asked the state to show its good faith by allocating \$500,000 a year for operation and maintenance of the bridge. Upper Peninsula legislators introduced a bill to pledge that amount of money. But later, the same legislators introduced another bill appropriating \$6-million for a new ferry. When that happened, potential investors walked away in a hurry.

The only tangible remains of the bridge dream, now, are (1) the blueprints, and (2) a useless \$880,000 causeway that was built out from the St. Ignace shore years ago to join the bridge.

Trouble on the Lakes

SAULT STE. MARIE, MICH.

—Great Lakes shipping was tied in knots last weekend by an almost unprecedented pileup of slush ice below the locks that lead into Lake Superior. In some areas, the ice piled to a height of 20 ft.

About 154 vessels were blocked behind the pileup. That's almost one-third of the entire Great Lakes freighter fleet—most of which are ore carriers. The jam means substantial losses for shipping companies, and it has prompted steel mills to refigure their estimates of ore supplies.

Apartments at Gimbel's

NEW YORK CITY

Gimbel's New York, big department store, announced this week that it's going into the housing business. Starting next week, it'll begin selling units of a giant cooperative apartment project—Bay Terrace Apartments—that's scheduled to go up in Bayside, Queens. Gimbel's will have model apartments on display on its 10th floor.

The project is being built by Norman K. Winston-Holzer Associates. It'll consist of 220 garden apartment buildings with a grand total of 18,500 rooms. Its capacity: 3,700 families. Approximate cost: \$50-million. Winston-Holzer says it will be the "largest cooperative apartment community in the U.S." Gimbel's expects the first group of units to be ready for occupancy late this fall.

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LOCAL NEWS



Waiting for Water

OKLAHOMA CITY—Water in Lake Hefner (above)—one of the city's two big supply reservoirs—now stands 21 ft. below its normal level. This developing shortage—the result of a long drought—prompted city managers, early this year, to start looking for new sources of supply. They decided on a \$2-million emergency bond issue to finance drilling of 80 wells in river bottoms upstream from the city. Last week, though, they decided to wait 30 more days to see what spring rains will do.

Oklahoma City has two main sources of water supply: the North Canadian River, and water wells. The North Canadian runs into Lake Overholser—the city's smaller reservoir—and passes through a system of dams into Lake Hefner. Right now, no water at all is being run into Hefner.

• **Industry**—City demands for water have increased 19% in the past year. That, by itself, would make the present shortage a tough problem. What makes it even tougher is the fact that Oklahoma City has been trying to attract new industry into its environs. Most companies need big quantities of water—and, consequently, aren't interested in any area where there's a shortage.

"The water situation is serious," one city official told the Oklahoma City Chamber of Commerce. "If Oklahoma City could do something to provide industrial water, we'd see industries we never thought would move into our area."

Bank Closings

CHICAGO—Three banks in this area—two in the city and one in a suburb—were closed last week by Illinois State auditor Orville E. Hodge for "examination and readjustment." The three are the first in the area to be closed in 20 years.

Involved are the Devon-North Town

revolves around such scientific market research, but there's more to it than that. Product planning breaks down into control over the line of products, new product development, and pricing. All of them overlap.

• **Simplification**—One way to keep control over a line of products is to make the line as simple as possible. Generally, that calls for eliminating superfluous models.

Before the war, for instance, GE's hand-iron plant in Ontario, Calif., produced 23 different standard models of hand-irons. On that basis, it could turn out 24,000 irons per week. Product planning after the war showed that the line could be cut to four standard models—all of which met consumer demands. The upshot was that the Ontario plant could turn out 60,000 irons a week, with practically no new equipment. It was an obvious cost-cutting step, important in a competitive market. You could spend a lot of time firing and hiring new salesmen and sales managers to produce the same profit hard-selling the 23 models.

• **Combining Standardization**—Closely tied to simplification is standardization, something else GE market managers have to worry about. When component parts can be made interchangeable, the savings are clear—in easier purchasing, inventory, production planning, long runs instead of short runs.

Since the war, General Electric has experimented with product simplification and standardization teams. These teams consist of a product or marketing manager, a process engineer, a values analyst, a production control man, a plant layout man, and a cost accountant.

• **Pricing**—Of course, lower price won't always push a product across fast enough to raise sales volume above break-even. GE cites the Disposall unit—for chewing up garbage right in the sink. It is a relatively new appliance in the GE line. The company had a tough time introducing it because of local ordinances and installation problems.

No price reduction would solve such a problem. The solution was a hard-hitting "consumer education" campaign—until price became a dominant marketing factor.

GE always takes a long-range price view. In 1923, it got together reports on refrigerator prospects, decided the thing to do was plan on year-by-year price cuts until 1933, when the price should be 37% less than it was in the beginning. GE finally entered the field in 1927 and, 10 years later, the price reduction was 43%. Profits went from a \$5-million loss in 1927 to a \$5-million net in 1930. This long-range pricing policy is tied closely into the rest of the product planning concept—with a full set of budgets for a variety of price levels.



DELTA QUALITY
MILWAUKEE MAKES THE DIFFERENCE

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200 **DELTA** Drill Presses?**

...Even Though They May Be Idle 75% of the Time...

"Delta drill presses cost so little that we can easily afford to keep them set up for certain operations, even though they may have to be idle 75% of the time," says Charles Curtis, production vice-president of Copeland Refrigeration Corp., Sidney, Ohio.

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"One special machine we built ourselves for \$300 using Delta drill press heads does a much better job than a \$16,000 radial drill. Its 3-man crew, always ahead of schedule, produces six times the output of the radial drill's 7-man group that was always behind; for an astonishing 2-shift direct labor saving of \$24,000 a year!

"That's why we bought 200 Delta drill presses."

Isn't that the kind of "economy talk" you understand? Thousands of plants like Copeland are enjoying just such benefits. Get the Delta story from your Delta dealer (listed in the Classified Telephone Directory under "Tools") and write for the Delta AB Catalog, Delta Power Tool Division, Rockwell Manufacturing Company, 540D N. Lexington Ave., Pittsburgh 8, Pa.

DELTA **QUALITY POWER TOOLS**
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MANAGEMENT

How to Sell without Salesmen

- GE concludes the answer to a buyer's market lies in careful product planning.
- Sales pull must be built into a product from the design stage on.
- That involves close control of a product line, new product development, and price planning.

A couple of years ago General Electric Co. made a radical switch in its strategy for manufacturing and selling vacuum cleaners. As a result, instead of trailing along with its traditional 6% or 8% share of the market, GE this week said, "We suspect we are in the No. 1 position."

The story behind that upswing can mean a lot to top management men who for months have been hearing that the days of the "hard sell" are either here or just about to be.

Nothing that has happened in the past few weeks has changed that outlook, either. So it seems fairly certain that in the near future the top problem facing management is going to be not keeping up with demand, but getting rid of what it produces—and doing it at a sustained profit.

• **Selling Snags**—The obvious way to do this is to sell harder. But just about every management finds itself struggling with a big question: How? That's because there are basic problems involved in the hard sell:

- Getting salesmen is no cinch (BW-Mar.14'53,p136).
- Those that you can hire don't know what it is like to sell hard.
- A lot of distributors and dealers aren't nearly so sharp as they might be.
- If you cut prices, how do you pay for bigger outlays for selling expense to make sure the lower unit return pays off in bigger volume?

GE's top brass thinks its vacuum cleaner experience proves its approach to the whole selling problem can pay off, especially if the economy is making competition so tough that added selling costs can't be absorbed by price increases.

• **GE's Clean Sweep**—GE's case in point happened this way: For years, GE had been in the vacuum cleaner business, but it could never get more than 8% of the market. It had no house-to-house selling organization such as that of Electrolux Corp. In fact, it had no specialty sales group of any kind.

About two years ago, a new department manager, 31-year-old R. A. Orr, decided to try what he figured was the only way to boost GE's sales position. Instead of worrying about how to sell the line GE already had, he came up with a different model—a canister type with a swivel top that permits a housewife to set the vacuum cleaner in the middle of the floor and reach all parts of an average-size room without any pushing or pulling.

His next move was to toss out all other models. By simplifying production, Orr was able to set a retail price of \$99—and still get what GE calls an "excellent" gross margin.

It wasn't excellent enough, though, to cover the cost of a house-to-house sales force. And Orr didn't want to depend on dealers or their salesmen to do all the demonstrating. So he bought a TV show—with Garry Moore as demonstrator. (Since then, the product has been switched to the Joan Davis show, even though GE swears by Moore's salesmanship.) In a little over a year the new GE vacuum sweeper doubled its industry position. Today, GE thinks it is No. 1, a spot usually accorded Electrolux.

• **Product Planning**—Behind this case study of how to sell without salesmen is a concept that's been kicking around GE top management circles for several years. Boiled down to two words it is product planning.

The theory is simply that selling isn't just one function in a neat one-two-three pattern of design, manufacture, and marketing. Marketing is the essence of business management—selling a product at a profit. So selling has to be built into the product from the beginning, not added on after the product is manufactured.

What this thinking does is to promote selling from an operating function into the class of top-policy planning. That planning has to cover every phase of a company's business—not just some gimmick to sell a product. If it's done

right, a company (1) won't launch a product that can't sell well; (2) will dump those that don't pay off profitwise; and (3) will change a line to meet consumer wants.

• **Self-Selling**—As GE sees it, the job of product planning is to make the job of the salesman as unimportant as possible.

Roy W. Johnson, executive vice-president of GE's appliance and electronics group, puts it this way: "Product planning is expected to integrate the planning, the timing, and the pricing required to add the new, eliminate the undesired, and improve the existing products." He once told a group at the University of Michigan that a product planner, a market researcher, and their boss—the marketing manager—in effect should "find the product that doesn't need to be sold."

• **Fast Strides**—At GE, product planning centers around the marketing or product manager, a much broader job than that of the traditional sales manager, or even the sales vice-president in many cases. It was first tried out in GE's affiliated companies. By 1950 it had spread to a companywide basis (BW-Jun.24'51,p30).

• **Not There Yet**—Johnson admits that in GE there are still some instances where engineers design a product, the general manager orders it into production, and, after there are some gizmos in the warehouse, the sales manager is told to go out and sell them. Says Johnson, "The engineer and the manager are banking on that sacred boobytrap word 'sell' to bail them out."

He cites an example from GE experience: The GE clock department was able to nail an order from a group of department stores. Store buyers and GE sales people prepared two designs, settled on one, and put through a manufacturing order by normal channels. When the order came up for marketing approval, it turned out that no market analysis had been made. Those involved decided they didn't need one since, with buyers' orders in hand, they already knew the market. A test was run anyway. The results: Only 15% of potential customers liked the clock chosen for manufacturing; 85% preferred the one the buyers and GE had rejected.

Obviously, the hard sell would have fallen flat if the initial choice had stuck. You might sell people something they don't want—but it costs a lot.

• **Three Points**—A lot of GE's system

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THE MANAGEMENT PATTERN

A Cautious Look at Extra-Salary Plans

IN THE PAST couple of years, a lot of things have happened to bring executive pay to the forefront of management thinking.

Starting with 1950, let's take a look:

- Innumerable treatises have been written, surveys taken, pleas made on (1) how much to pay an executive and (2) the best method of payment.

- Top management men themselves have made public speeches deplored the gradual shrinking of the financial incentives for executives.

- Stock options for key personnel began to snowball late in 1950 with the change in the tax law; the trend hasn't subsided yet.

- Special deferred pay contracts for high-level executives have been drawn, and schemes, such as deferred bonuses, have been tried.

- Ideas like the sale of warrants (BW-Apr. 11 '53, p104) have won support.

- Even spinoffs (BW-Oct. 27 '51, p154) that break big companies into smaller units have been at least suggested to help executives.

such an approach to the problem of adequate take-home pay has its drawbacks.

How about the lower-level executives who aren't included in such plans? What about the rank-and-file? How about stockholders?

There are rumblings from all three directions. The ranks of the cynical, who see the schemes as nothing more than a special way to feather an executive's nest, are growing steadily.

By itself, of course, a company can do nothing but go along. If competitors, for instance, adopt stock option plans, it is practically impossible to swim against the stream so long as a company wants to keep its own management happy.

Just the other day, a company president said that he had fought stock options ever since their resurgence after 1950. He was still arguing against them with his board when they overruled him. There are others who feel much the same way.

ADMITTEDLY, the problem is a sticky one. The solution isn't easy. Of course, the obvious attack is on the tax laws. Remove the stiff penalties against high salaries and you remove the need for special treatment. But such a solution is hardly in the cards.

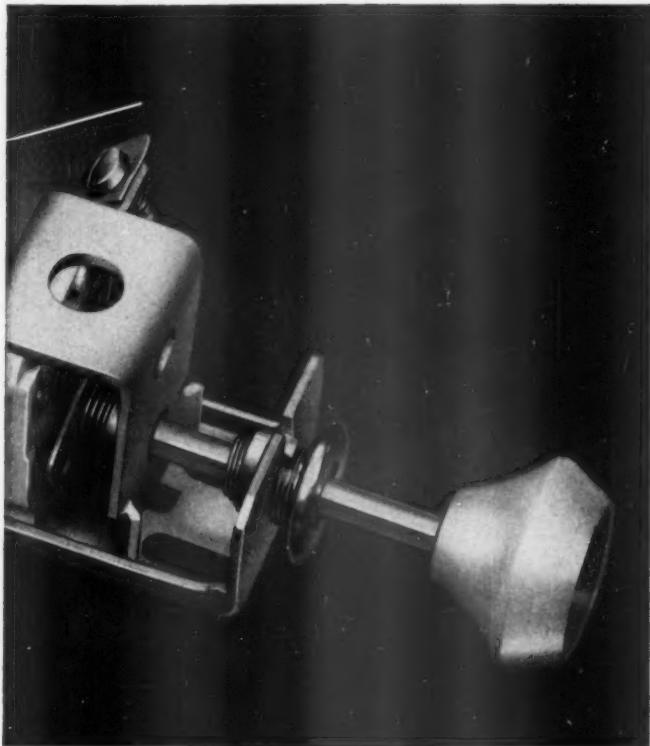
One logical answer—and one that a growing number of companies have adopted—is a profit-sharing trust or a stock purchase plan, like the one Armco Steel Corp. recently adopted, that would include all employees, from top to bottom—or a rank-and-file stock bonus plan.

Even though a stock plan means nothing much to a rank-and-file worker in the way of taxes, it does provide a sense of sharing in something top-side is getting.

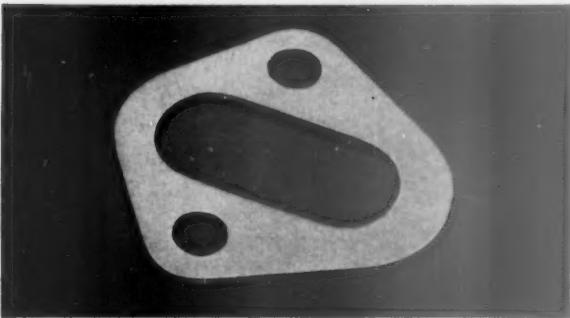
If not the rank-and-file, then most certainly everyone management considers an executive ought to have some part in any special tax-induced plan.

All these developments make one thing clear. Before management takes any plunge into special compensation plans, it had better look beyond the mere legality and consider the other problems, too.

ONCE MANAGEMENT ADMITS TO itself just what these plans are, then it must also admit that



3 DISTRIBUTOR BREAKER POINT. Two different Taylor products are part of this assembly.



4 FUEL PUMP GASKET. Impervious to gasoline. Fibre punches cleanly . . . easily.

uses Taylor Fibre and Laminates

It is dimensionally stable and machines easily . . . all requirements of the application. The insulation on the binding post is Taylor Fish Paper. It is a tough, hard vulcanized fibre with exceptionally high dielectric strength and good bending qualities.

4 Most gaskets lead a tough life . . . especially in fuel systems. That's why Taylor Commercial Grade Fibre is ideal for this type of service. It has high mechanical strength and the type of surface finish needed for a tight seal. It is impervious to gasoline. What's more, production men like it because it punches cleanly . . . easily.

5 Vulcanized Fibre; Phenol, Melamine and Silicone Laminated Plastics are among the automotive designer's most versatile materials. You'll find them used in dozens of electrical and mechanical components throughout your car . . . components that mean added miles of dependable service for cars, trucks and other transport equipment. Taylor Vulcanized Fibre and Laminates are available in a wide range of electrical and mechanical qualities. Taylor Engineers are well qualified to help your staff select the Taylor Products best suited to your particular requirements. Taylor facilities are geared to meet your production schedules . . . whether you buy

raw stocks of sheets, tubes, rolls or rods . . . or specially fabricated parts.

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Laminated Plastics
Vulcanized Fibre



1 FUEL PUMP VALVE. Taylor Laminated Plastic valve seat assures dependable operation.

HEADLIGHT SWITCH. Laminated Plastic back plate provides economy in production. 2



Here's how the Automotive Industry

5 TYPICAL components for the automotive industry, made of Taylor Laminated Plastics and Vulcanized Fibre.



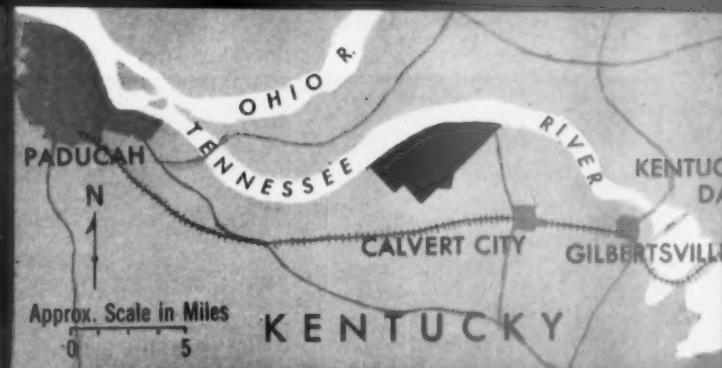
1 ONE of the tiny parts that help keep automobiles on the go is the laminated plastic disc in a fuel pump valve. To assure dependable operation . . . year in and year out . . . it must be impervious to gasoline and chemical additives. It must be tough, abrasion resistant and dimensionally stable to retain its flat seating surface for the life of the pump. The material selected for the job is Taylor LE Grade Laminated Plastic . . . a fine weave, lightweight cotton fabric bonded with phenolic resin that has excellent punching qualities for high quantity production runs.

2 When night comes, another Taylor Laminated Plastic goes to work . . . the back plate on a headlight switch. Requirements for this application called for low moisture absorption as well as the mechanical strength needed to support the switch components. It had to be easy to punch and machine, to keep production costs low. Taylor Engineers recommended Grade XP, a paper base laminated plastic. Results: a dependable low cost switch.

3 Distributor breaker points are another component that use Taylor products. The contact arm bushing is Taylor XX Grade tubing, a paper base phenolic laminate with high dielectric strength, even under humid conditions.

City Boom

TENNESSEE



3



VINYL
CHLORIDE
MONOMER

...to B. F. Goodrich
for the production
of plastics base

to
Geon
plants

POWER
Kentucky
Dam



New Plants

was already there. So Airco not only built its own plant but bought 1,500 acres around it. In effect, it set up as a sort of real estate middleman for industrial development.

• **New Approach**—First Penn Salt was persuaded to join the plan, adding chlorine production to its hydrofluoric acid works. Then Airco lined up Goodrich. For years, Airco had been tying itself to the plants of other companies, supplying them with industrial gases—oxygen, acetylene, hydrogen, nitrogen.

But this was a new switch; Airco set out to build a plant, and then find customers for it.

It worked. Beside Goodrich, other companies—including at least one big chemical outfit—are dickering with Airco for acreage.

• **Chemicals**—The Calvert City development serves another Airco aim, bringing it closer to the chemical industry proper, rather than on its fringes. Last year it made a first step in that direction, by forming the Air Reduction Chemical Co. division, which has already developed small-scale commercial uses for acetylene alcohols and glycols.

The National Carbide plant at Cal-

vert City may mean another stride. By installing new-type electric furnaces for making acetylene out of calcium carbide and water, the company can capture the byproduct gases, mostly carbon monoxide. These gases could be used for fuel, but that fact of economic life might change.

• **Talent**—These prospects please Hill, but he views them with the restrained enthusiasm that has become a hallmark of Airco presidents. His biggest kick comes from the fact that when the decision came to build at Calvert City he had a team all ready to run the multimillion-dollar plant.

Earlier, since Hill became president

Three-Way Show to Promote Calvert

1

Pennsylvania Salt's production
of anhydrous hydrogen chloride
is piped . . .



ANHYDROUS HYDROGEN CHLORIDE

2

... along with National
Carbide's acetylene . . .



ACETYLENE

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Illinois Central Railroad

Airco: Its New Plant Breeds Other

This week four companies sent their top brass to Calvert City, Ky., for a two-day ceremony that may well herald a major chemical boom in the Kentucky Dam region (map).

Executives and directors of Air Reduction Co., Inc., Pennsylvania Salt Mfg. Co., B. F. Goodrich Co., and the Illinois Central RR took time off to attend the formal opening of a joint production setup by the three manufacturing companies.

Actually, production at Calvert City

started in January, when B. F. Goodrich Chemical Co. hooked on a dual pipeline system to get chlorine from Penn Salt, and acetylene from Air Reduction's National Carbide Co.

Goodrich puts these raw materials together to make vinyl chloride monomer, which is the base for its polyvinyl Geon plastic.

• **Special Meaning**—The three-company tie-in meant a lot to all concerned. But the Friday and Saturday ceremonies were especially significant for Air Re-

duction and its 49-year-old president, John A. Hill (cover).

Hill and his company—through its National Carbide division—have bet a good deal of money on the region. Airco laid out \$10-million when it decided to build at Calvert City, later almost doubled the ante. It saw the area as a natural for the chemical industry, with power from the new (1944) Kentucky Dam built by the Tennessee Valley Authority, plus river transportation and water. Penn Salt

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a slice of
PRODUCTION
in
CHEMICALAND**

**BITUMINOUS COAL
PLentiful WATER
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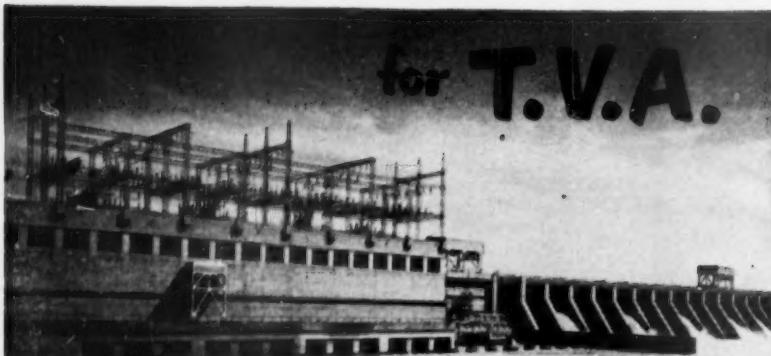
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AS a precaution against foreign objects being sucked into turbine propeller blades, in the huge TVA hydroelectric power system, intake water passes through "trash racks."

At Pickwick Landing Dam, there are six propeller turbines of 48,000 H.P. each, activated by the flow of 8,000 to 12,000 cu. ft. of water per second . . . more than 500,000 gallons per minute for each turbine, at full capacity.

To equip units 5 and 6 at Pickwick Landing, International Steel contracted to furnish the Trash Racks. 36 welded steel assemblies were supplied. Half of these were 20 feet square and weighed 8 tons each. The total shipment amounted to 252 tons.

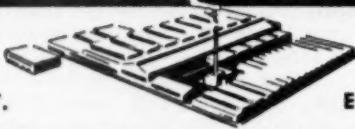
Such unwieldy structures required forethought in handling and shipping. Transportation was by river barge from Evansville direct to destination.



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... Airco became one of the chief producers of industrial gas . . . "

AIRCO starts on p. 148

in 1948, his chief problem had been developing people to fill the ranks of management. Right from the start he compounded his own problem by initiating a decentralization program in an organization that had always been run by strong centralized management in New York headquarters.

When Hill took over, the vice-presidents of the parent company were the operating chiefs of the division. The president himself was top executive of Air Reduction Sales Co., which manufactured the company's chief products: industrial gases.

• **Decentralized**—Whenever a plant had to shut down for any reason, the field had to call headquarters for instructions. Sales managers in the more than 20 districts had to worry about operations, distribution, accounting. Today they report to five regional managers, whose job is to handle precisely that type of decision. The regional chiefs report to their division heads, each of whom, in a sense, turns in a separate profit and loss statement each year. Each division is headed by either a president or a manager; these men are on their own, with a minimum of central control.

To make this setup work, Hill had to install a management training program. He started with the chairman of the board, worked down to the division and district level.

Before Hill, Airco had not done much thinking about handing out authority, except to the top ranks. Charles E. Adams had run the company for years. Air Reduction had been formed near the turn of the century with Rockefeller money, and finally hit pay dirt in 1915 by teaming up with a French company that had patents for taking oxygen out of the air—hence the name.

Adams got the top job in 1923, when the promoters of the company asked him what he thought Airco needed to pull its operations together. Said Adams: "Somebody tough to run it." He was picked.

• **Industrial Gases**—Adams' regime lasted until 1949 when he stepped out of the chairmanship to become a business consultant of the company. In that period, Airco became one of the chief producers of industrial gases. It spread out into calcium carbide (for acetylene) and such rare gases as argon. It also got into equipment manufacturing, and, in later years, medical and surgical equipment to go with its line of hospital gases.

In his day, Adams was just what

Wright, the company's New York counsel.

His rise to the top can be laid partly to native ability—and partly to the fact that, under Adams, the job of secretary and counsel was one spot at least where a young man could learn all phases of the business.

Today, Hill works closely with chairman Charles Munson, who had been teamed up with Adams for years and wound up as president when Adams became board chairman.

Although Munson worked under Adams, he agrees with almost everything that Hill has done to decentralize the company. He keeps himself on hand when high-level contacts are needed. He sits on numerous boards and has a flare for finance. In October, he is scheduled to retire from his active post with Airco.

Hill, on the contrary, is on no boards except those of Airco and its subsidiaries. "I've got to devote all my time to Airco. It probably costs me prestige—not to mention money. Later on maybe I'll accept some directorships—but by then they probably won't have me."

• **The Money Side**—Hill has his work cut out for him. He once told a New York Newcomen Society meeting about a banker's wife who asked her husband what Air Reduction made. The answer: "I don't know what it makes, except money."

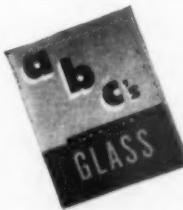
As late as 1936, Airco turned in a net profit, after taxes, of about 25%. Sales were \$27.8-million, net \$7-million. Last year the profit was down to about 6%. On record sales of \$124.6-million, profit amounted to \$7.2-million.

That margin should be helped by the expansion programs that Hill has pushed since he became president. Airco moved into liquid oxygen last year, plans further expansion this year. That means it can serve a lot more customers from one location, at a smaller investment. You can ship liquid oxygen much more cheaply than the gas, so it isn't necessary to build plants next door to the customer.

• **Seasonal**—On another tack, Airco is trying to level out the peaks and valleys of production for its Pure Carbonic division. A seasonal business tied to hot weather (dry ice and carbon dioxide for soft drinks), the division has always had erratic production schedules.

Now Hill wants to push the use of carbon dioxide for immobilizing hogs before butchering. George A. Hormel & Sons already uses the gas. Slaughtering time fits the Pure Carbonic off-season. Carbon dioxide is looking toward another major market; it has high hopes to be used as a coolant for metals in machining operations.

Still, the company's biggest hope probably lies in the chemical field.



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"... the men under him realize that when the chips are down, it's as much their worry as his . . ."

AIRCO starts on p. 148

Airco needed. The company was scattered geographically because of the nature of its products. Gas plants have to be built close to customers because of transportation difficulties. Pulling the scattered organization together, and holding it there, took hardboiled, central management.

• **Too Diverse**—By the time Hill came along, the company's needs were different. As Hill puts it: "When the company was one business, central headquarters could keep informed." But Airco was continuing to spread out and diversify. The top man's job ceased to be operations, but became a function of filling jobs with people who could use their own judgment. The operating people had to know more about that job than the president. What he, in his turn, had to know was whether the men he picked were reliable.

Hill admits that his five-year management training program hasn't been a full success. "Some of the men," he says, "won't pick up the ball; others you misjudge." (A central headquarters vice-president is now running one division to get it back on the road.)

On the whole, Hill is satisfied. The men under him realize that when the chips are down it's as much their worry as his. He told one operating man, "If this place blows, you and I will blow right with it."

• **A Mixture**—Hill is anything but the hardboiled boss; he thinks that kind of manager has passed out of the picture. If you need managers down the line, you won't develop them by knocking their heads together. "Let them make mistakes," says Hill. "They'll learn—and they'll appreciate the lessons, too."

This sort of leadership comes naturally to Hill. He's a mixture of scholar—with the saving grace of being able to laugh at himself—and a competitor who's accustomed to working with others to reach a goal.

All this stems from his college career. Born in Washington, D. C., Hill was a football star at Amherst. He was a back, topping 6 ft. and close to 200 lb., and won mention on Walter Camp's 1924 All America. At the same time he pulled down the school's Latin medal.

He went on to Columbia Law School, receiving an LL.B. and helping to meet expenses by playing pro football one year for the New York Giants.

• **Counsel**—In 1939 Hill joined Airco as secretary, via Shearman, Sterling, &



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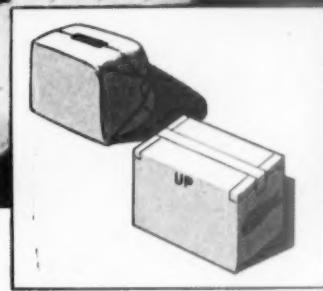
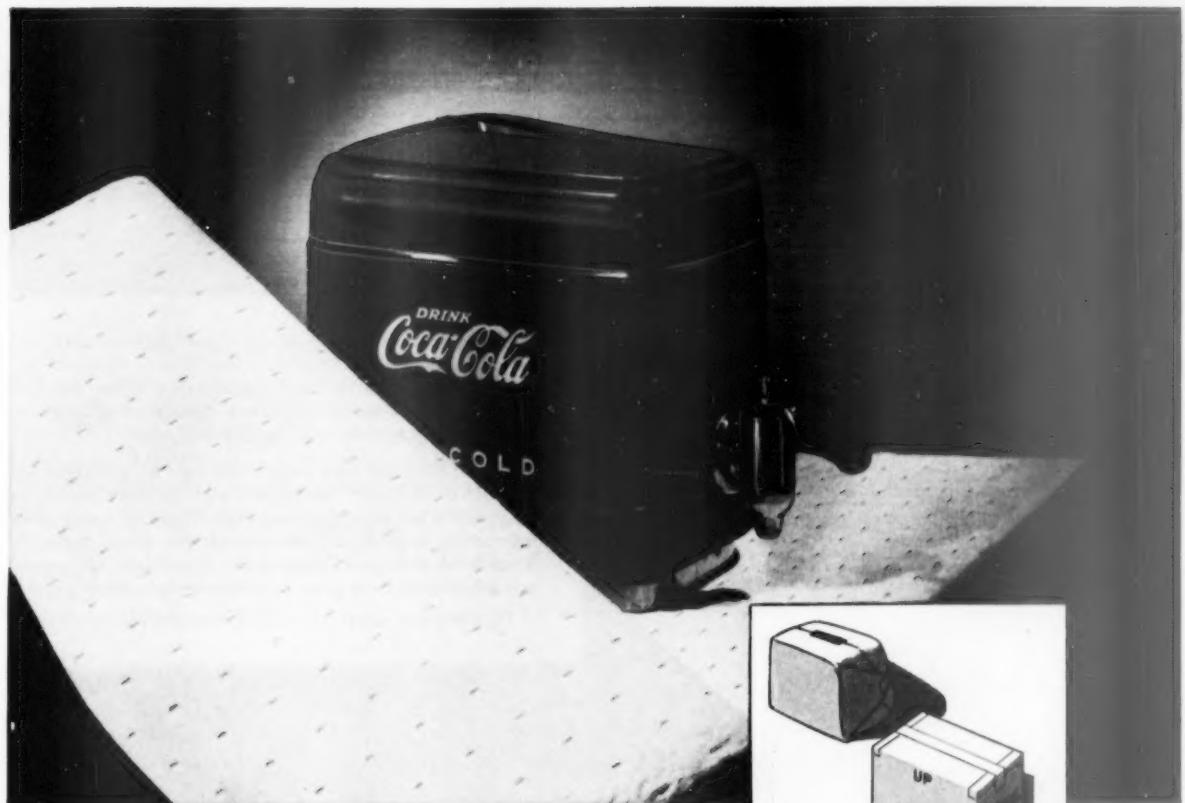
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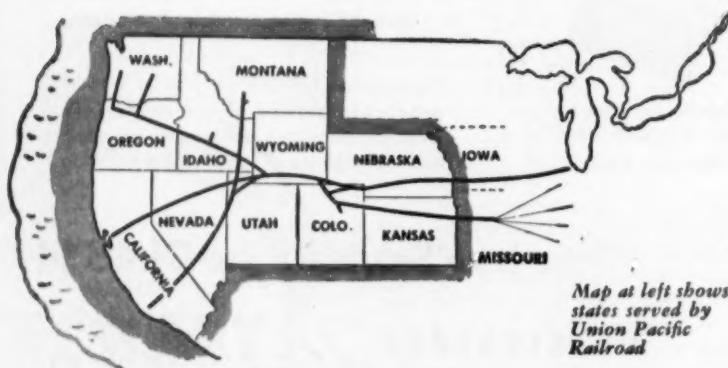
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Map at left shows states served by Union Pacific Railroad

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MANAGEMENT BRIEFS

Westinghouse Electric Corp. employees have bought \$15.7-million worth of the company's stock since the payroll deduction plan was installed in 1950. Total shares purchased amounts to 467,752, with the biggest number—114,542—in the six-month period ending Apr. 20, 1952.

Securities & Exchange Commission plans to amplify registration requirements for companies offering stock for sale to their employees. Information required would be less detailed than in a general public offering. The SEC will accept written criticisms on the new rule until May 12.

Words and phrases used in methods, time studies, and wage incentive programs are defined in a glossary issued by the Society for the Advancement of Management. The booklet contains 332 definitions, took four years to prepare. Price: \$1 a copy; address: SAM, 411 Fifth Ave., New York 16, N. Y.

Du Pont's spring letter to stockholders devotes a major part of its four pages to a discussion, using a baseball analogy, of its bonus plan for employees and officers. In operation for 48 years, the plan has been changed only in details, now extends to more than 6,500 people.

Chase Brass & Copper Co., Inc. subsidiary of Kennecott Copper Corp., has started a basic economics training program for its 8,000 employees. The course, How We Make Our Living, comprises 15 sessions of an hour and a half each (all on company time). Discussion leaders, handling groups of 16 employees, have been picked from the ranks and given special conference leadership training.

Management people of Santa Fe railway will attend a second Institute of Business Economics, to be held June 22 to Aug. 1 at the University of Southern California. Last year's course, attended by 32 Santa Fe people, recently won a Freedoms Foundation award for promoting a better understanding of business.

Management slate of directors for New York, New Haven & Hartford RR was elected without dissent. Holders of common, privileged to vote for the first time since 1947, heard president F. C. Dumaine, Jr., say that a minority of directors favored a quick payment on common. The only stumbling block: existing \$8 arrears on preferred.

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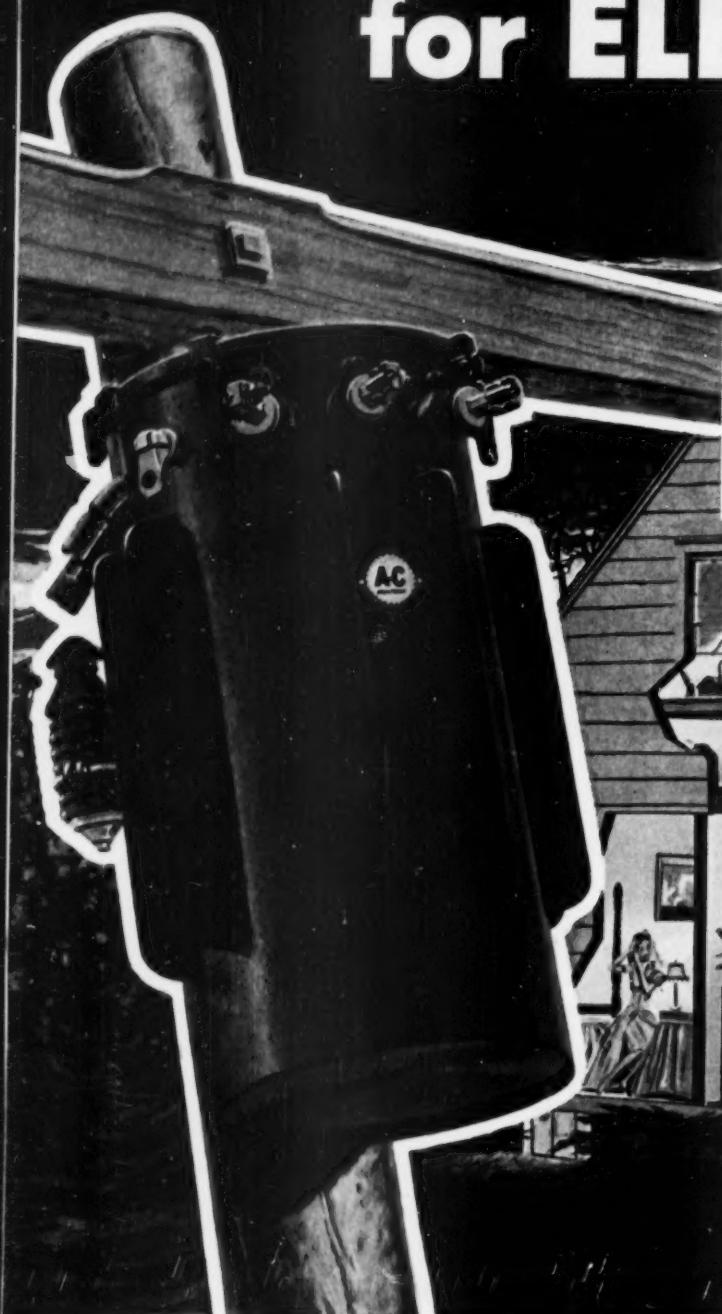
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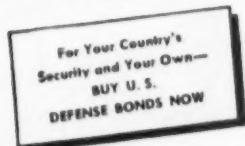
On the right is an Allis-Chalmers voltage regulator. This



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INTERNATIONAL OUTLOOK

BUSINESS WEEK
APR. 18, 1953



It's time for the U.S. to answer the Soviet peace offensive. That's what the Russian experts, both here and in Britain, say.

In doing so, they argue, Washington must keep two things in mind:

- How do we meet the propaganda impact of recent Soviet peace moves?

These have produced a wave of popular sympathy for Moscow in Europe and Asia. So the U.S. can't afford to leave the peace initiative in Russian hands.

- On what terms should the West settle if Moscow really wants an understanding? Should we agree to a cold peace that includes a Korean truce but otherwise leaves East and West entrenched in their present positions? Or should we push to end the cold war on our own terms—in Asia, a general settlement that stops the shooting both in Indo-China and Korea; in Europe, reunification of Germany and freeing of the Eastern European countries?

Washington will have its eye on the new regime in Russia as it tries to answer these questions.

To be sure, there's no certainty as to what goes on in the Kremlin these days. But two things seem reasonably clear:

- There's strong internal pressure on the new regime to undo Stalin's policies, domestic and foreign (BW-Apr. 11 '53, p145).
- The succession to Stalin is still far from settled. Malenkov's position as leader may depend on whether he can achieve a working arrangement with the West.

Another possibility is taken seriously in Washington and London:

Before Stalin died there were two opposing groups in the Kremlin—one that wanted to call off the cold war to give Russia time to consolidate its empire; a second that wanted to push things to a showdown. Stalin played it down the middle. But now the "peace" group, which has been led by Malenkov, has taken over.

If this is the case, Washington obviously has a tricky course to steer. On the one hand, we want to keep the "peace" group in power. On the other, we're not ready to make a settlement that merely gives Russia a breathing spell to strengthen itself for a final assault on the West.

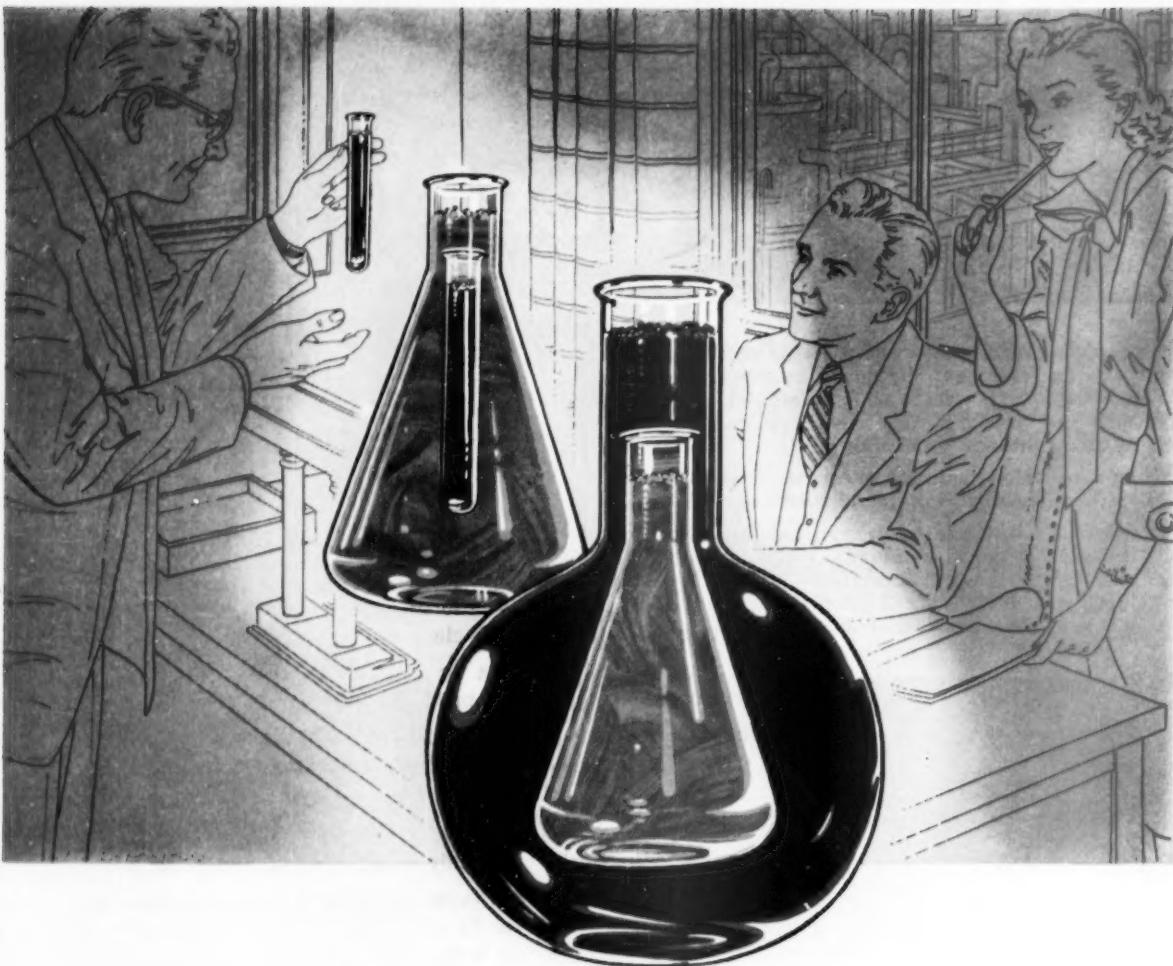
In any case, you can be sure that the West won't consider any general understanding with Russia unless Moscow first settles certain specific issues.

The most pressing, of course, is Korea. But Sir Gladwyn Jebb, British representative to the United Nations, mentioned two others this week: (1) a peace treaty for Austria; and (2) return of German, Italian, and Japanese war prisoners from Russia.

Meanwhile, the fear of a post-Korea slump already is spreading in Western Europe. There's almost panic selling of some commodities. (Tin has dropped by 20¢ a lb. in the past two weeks.)

Soon there may be a demand for European talks with Washington on joint plans to prevent a depression in the free world.

Many European businessmen and economists now wonder if the Western economy has been so geared to the cold war—with its rearmament and U.S. aid—that the bottom will fall out if a truce comes.



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... sometimes it never ends. Chemicals have relatively few sources; they come from the limestone quarries, brine wells, coal, oil and gas fields, even the air around us. But linking these raw materials with the major chemical consuming industries is a complex operation. It involves hundreds of chemical manufacturers with the specialized skills necessary for the production of thousands of chemicals.

It is often said that the chemical industry is its own best customer. This is probably true because most chemicals are made from chemicals. At Mathieson, soda ash, caustic soda, chlorine and sulphuric acid, for example, are end products. On the other hand, they may be the starting

point for other chemical manufacturers whose output, in turn, goes into producing more chemicals.

Here's the result: new and improved products and processes that benefit everyone. Through chemical research come great advances in the manufacture and utilization of glass, steel, plastics, paper, textiles, fuels, pharmaceuticals, and agricultural chemicals. It is this progress—resulting in the development of new chemicals and an ever-increasing demand for raw materials—that keeps the chemical industry growing.

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One of the vital ingredients used in the production of these detergents is *metallic sodium*. Every year, almost 50 million pounds of this industrial chemical are produced by the National Distillers Products Corporation plant at Ashtabula, Ohio.

Metallic sodium is sold not only to detergent manufacturers, but also for use in the production of tetra-ethyl lead . . . the gasoline additive that helps take the "knock" out of your car's engine. New uses are constantly being developed by research. Chlorine and sodium peroxide, co-products at this metallic sodium plant, find ready markets for many industrial purposes.

Although the output of these chemical products is sizable, they represent only a phase of the company's operations. They are in addition to National Distillers long established business as one of the country's leading distillers of alcoholic beverages. The company sponsors, among others, the famous brands listed below. All are painstakingly created from the finest ingredients and carefully measured against highest quality standards.

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Distilled London Dry Gin, 100% Grain Neutral Spirits, 90 Proof. Bellows Partners Choice Whiskey—A Blend, 60% Grain Neutral Spirits, 95.5 Proof. Old Sunny Brook,
Hill and Hill, Bourbon De Luxe, Bond & Lillard, Old Hermitage, Kentucky Whiskies

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK
APR. 18, 1953

It's the slump in raw material prices that bothers London most right now. This is hitting primary producers in South Asia and Africa.

In these areas, resources to finance imports and capital formation are heavily dependent on good prices for a few export commodities—tin and rubber in Malaya; jute and cotton in India and Pakistan; copper in Rhodesia; tin, cotton, and cocoa in West Africa.

As export income in these countries drops, imports have to be cut back. And that hits British and European exporters pretty hard.

Even a slight recession in the U. S. would make this whole problem much worse.

Despite some global economic gloom, Britons were dancing in the streets this week. The Conservative budget permits Britain's first tax cuts since World War II.

Chancellor Butler has managed the seemingly impossible—tax relief without paring defense and welfare spending.

Business is due for a major shot in the arm. The stifling purchase tax has been cut; the unpopular excess-profits levy is to die in January. And Butler has promised tax offsets on capital spending for new plant and equipment, to speed modernization of British industry.

All this will boost Tory stock. There's even talk of Churchill calling an election next fall in the hopes of increasing his thin majority in Commons.

British Labor has decided to nationalize the aircraft industry—when and if it returns to office. The government would take up 51% of the companies' stock.

Socialists argue that British plane makers owe their world leadership to government support of research and government contracts for untried models. They say the aircraft companies can't get enough capital privately to take full advantage of their commanding position.

This is a week of critical voting in Iran and South Africa. In each country, the issues are explosive.

Oil is completely forgotten in Iran. All eyes are on Premier Mossadegh's effort to wrest control of the army from the Shah. Mossadegh is allied with the landowners, the police, gets a temporary assist from the Communists.

On the Shah's side are the older army officers, the merchants, and the religious leader Kashani.

If Mossadegh wins, he'll probably try to crush all opposition once and for all. But he may need an alliance with the Communists—and that might bring civil war.

In South Africa, European investors are accepting the risk of a racial blowup. Recently they have started investing in gold mining again.

They have assumed all along that Dr. Malan's Nationalists would win this week's election. Even so, they don't expect South Africa's racial bitterness to boil over in the near future.

Malan is expected to establish a long period of Afrikaner rule, with the farmers dominant. That means less influence for the English-speaking elements.

Stability

tightening their grip. In Bolivia, a grim silent struggle for power is going on between moderates and extreme leftists. The Perez Jimenez dictatorship in Venezuela is building up a dangerous backlog of hatred. From his shaky pedestal in Buenos Aires, Juan Peron dreams of leading an isolationist hemisphere bloc. Even in Brazil, the Vargas government faces serious economic and political difficulties.

What's more, the current change in free world economic climate adds urgency to a review of Latin American policy. The post-Korean arms boom is at a peak. The possibility of an economic slump in coming years is too real to brush off.

• **Exports**—Such a slump would hit Latin America especially hard. It depends heavily on raw material sales to the U.S. Already some prices are softening. Chileans, for example, are worrying about how to sell their copper, high-priced at 36½¢ a lb. Brazilians and Colombians worry about their coffee. Revolutionary Bolivia finds that the world isn't falling all over itself to buy its newly nationalized tin.

Any serious drop in demand for Latin American exports, with its accompanying pressure on living standards, would raise political hob, might topple shaky governments into communism, fascism, or civil war. Prosperity has become a firmly entrenched popular habit in Latin America. These days Juan Pueblo, the man-in-the-street, is likely to pick up a carbine before he tightens his belt.

I. Neighborhood Duty

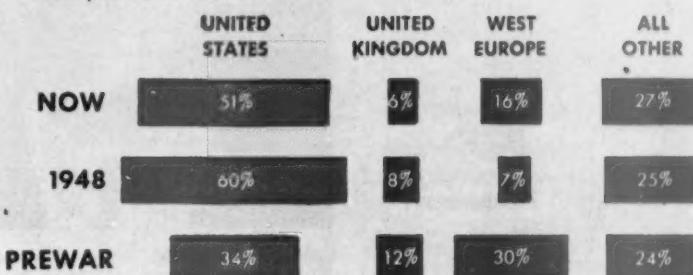
That possibility gives even hard-boiled diplomats and businessmen the willies. The U.S. is playing for staggeringly high stakes in Latin America. We supply half of the area's imports—over \$3-billion yearly, a quarter of total U.S. nonmilitary exports. We buy half of Latin America's exports—much of it in essential materials like copper, tin, tungsten, oil, bauxite, chrome, and coffee. Our direct investment in the 20 republics is over \$4.7-billion, 40% of all U.S. investment abroad (chart).

Some persons, uneasy about the rumblings from Latin America, are urging changes in our hemisphere policy. They wonder whether we shouldn't alter our traditional policy of nonintervention.

• **Pressure?**—Some businessmen want

U. S. Supplies Half of Latin America's Imports

Last year: \$3.3 - billion



U. S. Buys Almost Half Latin America's Exports

Last year: \$3.45 - billion



U. S. Has \$4.7-billion Direct Investment There

Agriculture	\$476 - million
Mining	\$617 - million
Oil	\$1.4 - billion
Manufacturing	\$774 - million
Transport, Utilities	\$1.1 - billion
Other	\$374 - million

Data: Dept. of Commerce

BUSINESS ABROAD

Latin American Boom: It Brings No



Latin America has never been more prosperous. From the Rio Grande to Cape Horn, more Good Neighbors are better off than ever before, thanks to a decade of almost solid boom. For its part, the U.S. has been patient and friendly in its Latin American relations: Yankee imperialism, in the form of Marine landing parties or dollar diplomacy, is a relic of the past.

Yet today our hemisphere relations are uneasy, troubled. Anti-Yankee nationalism, egged on by Communists and other extremists, seems to be mounting. Political and economic instability threatens at least half of the 20 republics. That, in turn, threatens the tremendous U.S. economic and strategic stake in the Americas.

• **If a Slump Comes**—Cynics will tell you that such a state of affairs is natural to Latin America, and that you can't change nature. But it raises some worrisome questions. If Good Neighbor relations are strained now—in good times—what happens if even slightly bad times set in?

The answer, from almost every student of inter-American affairs, is that there would be a mess—for U.S. business as well as U.S. diplomacy. In present-day Latin America, a business slump could bring political chaos.

In Washington, the new Administration is giving a lot of thought to remodeling Latin American policy. In his Pan American Week address last Sunday, President Eisenhower promised to keep faith with the hemisphere, named his brother Milton, president of Pennsylvania State College, as a one-man factfinding and goodwill mission to Latin America. The new Assistant Secretary of State for inter-American affairs, John Moors Cabot, is already in the middle of a survey swing through Central America and the Caribbean. Meanwhile, State Dept. experts are working hard to find new answers to Latin American problems.

• **Kibitzers**—The experts are getting plenty of advice from kibitzers in business, labor, press, and the Congress. Most of the counsel concerns the danger of communism in Latin America; many Americans believe that Latin America today is comparable to China 20 years ago.

While most old Latin American hands think that is an exaggeration, they agree that there's some fire behind the smoke of anxiety.

In Guatemala, Communists are

Uruguay and Argentina fear the drive to impose countervailing duties on their wool sales.

• **Imports Fall First**—About the best they can hope is for the U.S. to hold trade barriers about where they are (page 25). That's O.K. as long as business activity remains high here. But a slump would be something else again. In a slump, imports drop much further than either U.S. general business activity or industrial production. For example, in the recession of 1937-1938—taking 1937 as 100—the gross national product index fell only to 94, but imports from Latin America went to 67. They would have dropped still further, save for the fact that 55% of Latin exports are foodstuffs (coffee, bananas, cacao, and sugar), which don't drop as far as industrial raw materials.

The new political and economic situation in Latin America would make any sort of recession harder to bear up under.

In many ways, the policies of U.S. businessmen in Latin America are almost as important as those of government. In no other area of the world does the private U.S. investor have such varied enterprises and influence. So you can look for the State Dept. to work more closely with American businessmen south of the border.

• **Renegotiation**—Observers say that generally the U.S. businessman has done a good job. Many long-time investors who originally obtained extremely favorable and often one-sided operating concessions have voluntarily revised them in step with the times. Management worries constantly about public and government relations, tries to take the lead on labor and social policies. In many cases, Latin Americans have responded. Peru and Colombia's new foreign investment laws are good examples.

Washington wants more U.S. investors to look to the hemisphere, is cooking a number of plans to attract them. Technically, a promising device would be greater tax incentives to investors in Latin America. But that would be tough to push through Congress; and Latin Americans are sure to move into the vacuum left by lower U.S. taxes with higher levies of their own.

In the last analysis, it is felt that it's up to Latin Americans to encourage the investment. If Brazil can curb the emotional nationalism that results in foreigners being prevented from helping to develop its oil; if Bolivia restores some measure of confidence in Latin America by paying compensation for its nationalized tin mines; if Chile can soft-pedal irresponsible talk of taking over the U.S. copper interests there—more American free enterprisers will put up their money and have a go at it.

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VICE PRESIDENT
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WITH WINGS, TOO.

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Washington to pressure Latin American governments to give our investments a better shake. Labor leaders would like the U.S. actively to champion free labor unions—going over the heads of local governments when necessary. Some politicians and diplomats think the Administration should use the Big Stick—economic, even military, sanctions—to persuade a country like Guatemala to root out communism.

They make a strong case. Popular demand for political and social progress is snowballing in Latin America. The U.S., they warn, will lose out in the long run if it identifies itself with, or merely keeps hands off, dictatorships.

• **Answers**—So far, pressure for a tougher policy hasn't made much of a dent in Washington. Most policymakers and experienced businessmen have a strong case themselves.

Nonintervention, they say, wasn't a homegrown policy. It was forced on the U.S. by a united and fiercely nationalistic Latin America in the wake of our military adventures in Haiti, Nicaragua, Mexico. It's the basis of the Pan American system—to keep the Colossus of the North from dominating the weaker neighbors in the south.

Any deviation from this policy would unite Latin America against us. It would drive many nations into the arms of a Peron, the Kremlin, or a whole new crop of virulently anti-Yankee demagogues. There might be a chain reaction of expropriation of U.S. property.

• **Dilemma**—In short, the U.S. is damned if it does and damned if it doesn't. It can't allow Moscow communism or know-nothing fascism to infect the Americas; but it can't set the hemisphere against it by open intervention. It must rely on Latin Americans themselves to contain the Perons and the Communists.

There's some encouragement. The Central American states are already quarantining Guatemala; in South America, Peron's project of empire find few supporters outside Argentina.

That leaves it to the U.S. to play the patient Good Neighbor. And it means looking to economic policy. For the basic problems of Latin America are intimately intertwined with economics.

II. The Key to Eldorado

Latin Americans have a long tradition of treasure-hunting. In 1542 a Spaniard named Orellana crossed the Andes on foot under full armor searching for gold along the Amazon. He and those who followed him never found the true Eldorado. But modern Latin Americans are inclined to think they've found it in the U.S. Treasury—if only they could find the key.

That explains why limited U.S. hand-



FACTFINDER: Dr. Milton Eisenhower, president of Pennsylvania State College, will carry goodwill to Latin America and bring back facts for the Administration.



POLICY PLANNER: John Moors Cabot is Assistant Secretary of State for Inter-American Affairs. A career officer, he has served in seven Latin American capitals.

outs to Latin America since the war have become the largest single source of friction. Governments south of the border by and large accept our technical help with exasperated patience rather than gratitude. Their attitude resembles that of a poor relation humorizing an eccentric but wealthy maiden aunt. He accepts Christmas baskets but keeps hoping for a cash settlement.

• **Broader Base**—The Good Neighbor governments have a compelling modern motivation for their treasure-hunting. Almost every Latin government finds that it has to take account of an ever-widening base of public opinion. The workers, peasants, and white-collar classes that make up that base are demanding rapid social and economic progress. Governments that fail to meet this demand, even though they provide temporary bread and circuses, can't expect long lives.

As a result, nearly every government has embarked on a policy of rapid industrialization (BW—Special Report, Aug. 25 '51). That costs money. And much of the money must come from the U.S.—the great capital-exporting country in the free world.

This, according to students of Latin America, is the central problem of our hemisphere relations. The relations will improve if the U.S. is able to help finance the industrial revolution at a rapid rate. With better health, housing, food, pay, working conditions, and education, the danger of totalitarianism will diminish.

III. Hemisphere Policy

Beyond the diplomatic necessity of scattering more flowers in Latin America there are only a few obvious lines of

attack. Washington can ladle out aid, it can stimulate profitable trade, it can encourage private business to invest in Latin America. Already the main policy lines are pretty clearly drawn.

Almost unanimously, the U.S. officials oppose any major aid program. We'd have to give to all countries if we gave to any; that would spread aid too thin unless an impossibly huge giveaway was intended. But technical assistance, most experts agree, should be continued. It has scored important gains in farming, health, sanitation. And, too, more emphasis is being considered on training promising Latin Americans in U.S. schools.

• **More Loans**—Washington is convinced that the U.S. loan program in Latin America should be expanded and streamlined through both the Export-Import and World Banks. Loans earn a profit and cost the taxpayer nothing; often they do a great deal for the recipients. In Brazil and Chile, for example, U.S. loans helped establish steel industries. These may not be so efficient as U.S. mills, but they provide important foreign exchange savings, help diversify the economy.

That diversification is the over-all objective of all U.S. assistance schemes south of the border. It reduces Latin dependence on a few export commodities that are highly vulnerable to changes in the business climate of the world—and especially of the U.S.

Trade with the U.S. is the mainspring of Latin American prosperity; for that reason many of the Good Neighbors are worried about rising protectionist sentiment in Congress. There are bills afoot that would slap a tough quota on Venezuelan oil, a sliding scale tariff on Mexico's lead and zinc;

BUSINESS ABROAD BRIEFS

Oil world: Caltex Oil Co. got a 25-year, no-nationalization guarantee from India for a refinery it plans there. . . . A Japanese tanker left Iran this week with 18,000 tons of oil and gasoline—first shipment under an agreement Idemitsu Kosan Oil Co. made with Iran to buy unlimited quantities of crude and refined oil at less than world prices. . . . Texas Gulf Production Co. and two other U.S. concerns bought the Peru oil lands of Cia. de Petroleo Ganso Azul for \$4-million. Texas gets 80% of the company, Kendall Refining Co. and Bay Refining Corp. each 10%.

Detroit Board of Commerce, one of the travelingest, most world-minded industry groups in the U.S., is at it again: 50 businessmen-members are off on a month's tour to Alaska and the Far East to size up markets.

Lockheed got an order for seven turbo-compound Super Constellations from Qantas Empire Airways, Australia; Consolidated Vultee got one from KLM Royal Dutch Airlines for six Convair-Liner 340s.

A floating show window set sail from Japan this week. The Myotoma Maru has been outfitted with two exhibition halls and 2,500 products ranging from needles to textile machinery. It's on its way to Latin America via South Africa to show the world what Japan's producing.

Mexican memo: Mexico wiped out tariffs on imports of heavy machinery for power production, industry, mining, agriculture, and the graphic arts. . . . The Mexican textile industry faces total ruin, says Luis Basurto, president of the textile manufacturers council. He blames the unions—they balk technical improvement while demanding higher wages.

India's first electronics plant is to be built by the government with the co-operation of the French Compagnie Generale de Telegraphic Sans Fil.

Cuba made a deal to sell a million long tons of sugar to Britain during the next two years.

Secretary of the Treasury Humphrey asked Congress to rewrite the foreign residence tax exemption law. The law relieves you from U.S. taxes if you spend 17 of 18 consecutive months abroad. Humphrey doesn't want to abolish it, but wants it tightened up so that people whose work in a foreign country is "clearly transitory" can't get in on the break.

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— Says Foreman of BURNY BROS. BAKERY, CHICAGO



Garage and stockroom floors in Burny Bros. large, modern bakery get daily scrubbing with a Job-Fitted Combination Scrubber-Vac and Setol Cleanser . . .

THEY'RE AN UNBEATABLE TEAM to speed the cleaning of oily, greasy floors. *Here's why:* A Scrubber-Vac completely mechanizes scrubbing. It applies the cleanser, scrubs, flushes if required, and damp-dries the floor—all in one operation! Job-fitted to specific needs, a Scrubber-Vac provides the maximum brush coverage consistent with the area and arrangement of the floors. Its teammate, *Setol Cleanser*, is specially designed for the greater speed of combination-machine-scrubbing . . . emulsifies grimy oil and grease instantaneously for fast, thorough removal by the machine's powerful vac. Moreover, *Setol* retains its strength longer than average alkaline cleansers. This, too, speeds the cleaning process . . . saves on materials . . . and cuts operating time of the machine, which in turn reduces labor costs.

The Scrubber-Vac shown above is *Finnell's 213P*, for heavy duty scrubbing of large-area floors. It has a 26-inch brush spread, and is capable of cleaning up to 8,750 sq. ft. per hour! *Finnell* makes sizes for small, vast, and intermediate operations (available on lease or purchase plan) . . . also a full line of fast-acting cleansers. In fact, *Finnell makes everything for floor care!*

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RAILROAD CAR tours U.S. with working display of British-made equipment as . . .

Machine Tools Hit the Road

Shortage ends as U.S. makers catch up with Korea demand. But British outfits start scratching to hold at least a part of once lively market.

A railroad car outfitted with 14 British machine tools worth \$100,000 left New York last week on the first leg of a nationwide tour. A U.S. firm, British Industries Corp.'s International Machinery Div., is staging the trip to spur sales for the 27 British machine tool makers for whom it acts as U.S. distributor.

British Industries started planning the traveling machine shop two years ago against the day when the Korea-born shortage of machine tools would come to an end. That day seems to be now.

Caught Up—Last week the U.S. Bureau of Employment Security announced that the machine tool industry can now meet all defense needs. This probably sounded like an understatement to most manufacturers. New orders have been declining steadily since the post-Korea peak last spring.

That's why officers of the National Machine Tool Builders Assn. warned members at last week's annual meeting that they are in for a period of stiff competition—that they'll have to hunt down orders.

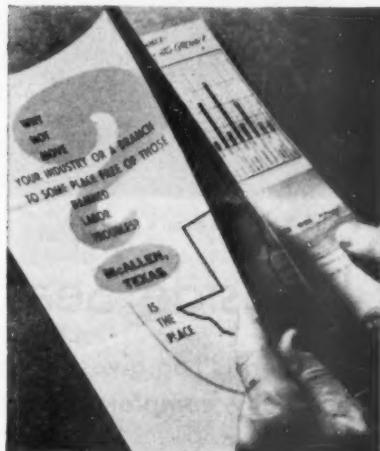
If that is true for U.S. machine tool makers, it's even more so for the foreign companies selling in the U.S. Until 1950 machine tool imports rarely topped a couple of million dollars in the \$1-billion U.S. market. Then came

Korea. You couldn't get machine tools here; they were readily available in Germany, Britain, Italy, Switzerland, and France (BW—Sep. 20 '52, p155). As a result imports rose to about \$14-million in 1951, and then to about \$50-million in 1952.

Competition—Now the Europeans again have to compete with U.S. companies on the make. They have no illusions, don't expect to keep more than a minute part of the total U.S. market. But they say that some machines built in Europe just aren't made in the U.S. So Milton Thalberg, sales manager of International Machinery and president of the American Assn. of Machinery Importers, figures they can still make a lot of sales here if they scratch.

That's the purpose of the Machine Tool Caravan. The New York, New Haven & Hartford car is set up as a machine shop with technicians to demonstrate the machines in operation for prospective customers. It's now in Boston after a visit to New Haven. Next week it leaves for Providence, Syracuse, Buffalo, Cleveland, Detroit, Cincinnati, Pittsburgh. It will be back in the New York area—where it will spend the summer—at the end of May. In the fall it will make other trips, aiming to cover just about every major industrial area in the U.S.

negotiations, not only to "wages" but to "wage rates." Some even spell out "straight time hourly wage rates." What happens in practice, however, is that as the employer tries to bargain down a whopping wage demand, the union will offer to trade it off for "other contract improvements." Thus some managements have unhappily learned that any negotiation with its unions—regardless of the terms set for such bargaining—means in effect a new contract to be hammered out.



States' Rights Make Tough Labor Questions

Local chambers of commerce are now frankly promoting industrial locations on the basis that their state has tough labor laws. They are considered a distinct asset in the highly competitive bidding for plant migration. But unions, and many employers who are content to deal with them, view this development with growing alarm. Competition at the expense of established labor standards and wage rates may be disastrous for traditional relationships.

This whole issue has become more acute because of two recent developments. The first is a U.S. Supreme Court decision holding that a Virginia labor statute takes precedence over the federal Taft-Hartley law in cases where their provisions conflict (BW-Mar.28 '53, p174). The second is what appears to be a growing sentiment in Congress to amend Taft-Hartley by making it inferior to state laws that go further in curbing unions and regulating union activity. It is generally agreed that such a change in Taft-Hartley would encourage some states to do even more than they have so far in enacting such curbs.

TWA announces MORE SHIPPING SPACE TO EUROPE



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LABOR

- Long-term contracts have failed to catch on as had seemed likely.
- Management may like them, but labor leaders don't.
- Wage reopenings, however restricted, mean new contracts in practice.
- Unions' "living document" theory helps unseal agreements still in force.

Contracts: New Dogma Develops

When General Motors and CIO's United Auto Workers signed their five-year contract almost everybody said, "Watch the idea catch on." Now, two years later, there isn't a major contract outside of either the auto industry or UAW's jurisdiction that provides a five-year term.

Today, in fact, as GM and the UAW are bargaining over wages, it is crystal clear that whatever the document the parties executed in 1950 may be, it is not what is commonly meant by a contract. The terms it so carefully set for making automatic wage changes during its life are now being negotiated all over again. That this has happened in the case of the prize exhibit of the five-year contract leads inescapably to the conclusion that the long-term labor agreement doesn't have much future in industrial relations.

• **Need for Lull**—UAW accepted GM's five-year contract proposal for a reason peculiar to itself. Walter Reuther, new to the presidency of UAW, needed a period of relative stability to deal with pressing internal union problems. He had some ideas for reorganizing the union's work; he had a potential opposition to box off; and he needed a breathing spell in which to establish his own control beyond challenge. These considerations made a five-year pact attractive. But they were not matters of compelling importance to other big unions.

Desirable as long-term contracts may be to management, most unions will go far to avoid them. For unions thrive on negotiations. As Sumner Slichter, the Harvard economist, has pointed out, "It is when negotiations are impending or going on that the interest of members is most easily aroused. The negotiations give union officers a chance to demonstrate their skill as bargainers."

Even in the UAW situation, Reuther has found he doesn't need the full five years in which to consolidate his authority. He has seized the opportunity provided by the new BLS index to reopen negotiations with the auto industry (BW—Jan. 17'53, p141).

Reuther has coined a new slogan to justify opening contracts that have no

provision for changes during their life. It is known as the "living document" theory. The rubber workers union used it in getting U. S. Rubber to open a five-year welfare and insurance agreement just last week (BW—Apr. 11'53, p.158). As that union puts it, "Long-term agreements are dynamic, living documents that should be reviewed if economic conditions change materially during the life of the contract." Thus far, no employer has asked to open an agreement for purposes of cutting wages under the "living document" theory. Should one attempt to, the union reaction is safely predictable.

The whole concept of what a union-management contract means underwent a change when the "reopening clause" was introduced. With a quick-moving consumer price list and an economic outlook that responded fast to shifts in the international situation, there was some real justification for reopening contracts in an orderly way to review wage rates. Most of the contracts with reopeners provided that only the wage clause would be negotiable, that the rest of the contract remained in full

force and effect. This meant, of course, that strikes were banned until the contract's termination date.

But when the steel union under the late Philip Murray felt stuck in 1947-49 with a two-year contract over a period when prices climbed sharply and other unions got fat wage increases, Murray vowed never to tie himself up that way again. He continued to sign two-year agreements with the steel industry, but they always had to have a reopening clause—and what was more important, lack of agreement over wages at the reopening point nullified the no-strike clause. Many other unions followed that pattern.

Hence even the two-year contract is in many major instances an illusion. While the negotiations that open next month in the steel industry, for example, are technically a wage reopening, they could legitimately develop a strike as serious as any over issues in a brand-new contract.

Nor has the restrictive language of the wage reopening clause always done the job employers hoped for. Some of these clauses are carefully drawn to limit

Major Long-Term Contracts

Company	Union	Industry	Expiration
General Motors Corp.	CIO Auto Workers	Automotive	May, 1955
Ford Motor Co.	"	"	"
Kaiser-Frazer Corp.	"	"	"
Budd Co., Philadelphia	"	- Auto Parts	"
Nash-Kelvinator Corp.	"	Automotive	June, 1955
Chrysler Corp.	"	"	August, 1955
Studebaker Corp.	"	"	"
Packard Motor Co.	"	"	"
Briggs Mfg. Co.	"	Auto Parts	"
Heddes Motor Car Co.	"	Automotive	September, 1955
General Motors Corp.	CIO Electrical Workers	Electrical Mfg.	May, 1955
Allis-Chalmers Mfg. Co.	CIO Auto Workers	Farm Equipment	July, 1955
International Harvester	"	"	August, 1955
International Harvester	Form Equipment Workers (UE)	"	July, 1955
Doors & Co.	CIO Auto Workers	"	"

SIU shipowners now provide them, and the men jealously guard them against damage and use by the officers. "Washing machine was left running all night" is a common complaint. Or "motion was passed to have no one use the washing machine after 9 p.m." To play safe, the crew of another vessel decided "to lock up washing machine in all ports."

• **Missing Hands**—Men missing ship sailings create problems and violate regulations. They are maritime absentees. A short crew means extra work for the rest of the men, and it means discipline for the offender. These cases are duly read into the record. At a meeting on the Michael, for instance, it was noted that "two members were missing at sailing time in New Haven . . . Missing men will be reported to the patrolman." Sometimes a crewman may sleep it off and catch up.

Union contracts entitle crews to shore leave or overtime pay when the captain wants to keep them aboard. On the Purplestar, "crew will put in for overtime since there was no shore leave in Korea." The crew of the Elizabeth complained that "there was no launch available at Ponce. Chief mate refused to issue passes."

• **Sweepdown**—Safety and good house-keeping are big issues aboard a ship. Crewmen on the Logans Fort hear a "beef on the abundance of cockroaches." On the Coe Victory, it was decided that "due to dangerous working conditions on deck . . . the repair list will be made out."

Clashes with supervisors seem just as common aboard ship as in plants and offices. "Another member will make a statement concerning the physical and verbal abuse he received from the third assistant engineer," reads a report from the Bethore. Aboard the Calmar, the crew complained that "the chief mate is continually interfering with men working . . ."

• **"Performers"**—Breaches of conduct are also put into the record, and the term for a seaman who engages in horseplay and misconduct is a "performer." A meeting of the crew of the Republic noted that "crew is exceptionally good; we lack performers" and woman chasers. Aboard the Catahoula "there was some performing in Cuba; this must be stopped."

Seamen on the beach are avid readers of these meeting reports. They can get an idea of the quality of food, working conditions, and morale. They can also locate old shipmates, since many of the reports include crewmen's names. Beyond that, they can pick up some valuable tips about port conditions. A classic example is this solemn warning by the crew of the Anne Butler: "Lay off the Korean booze; it has a devastating effect on the system."

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licenses, bookkeeping or
other countless confusions of truck ownership.
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clean truck, your size,
with your name . . .
everything supplied but
the driver!



INFORMAL GRIPES at shipboard sessions are published in seaman's paper, so . . .

Shipowners Get Ringside Seat

Digest of union meetings in Seafarers Log gives management an idea of what seamen really complain about inside their local.

Few management men ever get an opportunity to observe their unions at the grass-roots level—the local meeting. They hear about the gripes employees have when they are finally set forth as formal grievances. But short of that, almost no employer has any exposure to the way the men react toward their work when they aren't on the job.

That doesn't apply, though, to shipowners who deal with AFL's Seafarers International Union. They get a break. SIU's newspaper, Seafarers Log, carries a digest of meetings held aboard most of the union's ships.

• **A Sailor's Lot**—Seafaring is in many ways more than just another occupation. For the men on the ships, it's a completely different kind of life from that of the machine hand or the office worker. A ship after all isn't something a man comes to at 9 a.m. and leaves at 5 p.m. His food, his recreation, and his quarters are all part of his compensation and working conditions; they are all the subjects of his beefs or grievances; they are all union business.

Nevertheless, what seamen bring to their shipboard union meetings—maybe with more color and fewer inhibitions—may provide insights into the way employees in general complain.

• **Cold Steak**—Food is one of the major issues aboard ship. In general, it seems to be good on American ships. A typical statement in the Seafarers Log for a meeting aboard the San Mateo Victory reads: "Vote of thanks went to the stewards department for fine preparation and serving of food." While that kind of entry is common, it's not universal.

Aboard the Wild Ranger "one brother complained that his steaks were served cold" recently. In a meeting on the Cubore it was decided that "steak should be on the menu twice a week, as well as ice cream and fried chicken." Aboard the Jean, the crew wanted more trimmings; "tablecloths are wanted, as well as a variety of jams."

On the Western Trader, the tone was blunter: "Patrolman [the SIU port representative] should make sure there are enough Grade A meats in storage. The food has been awful." And aboard The Cabins recently the crew was even more direct, and apparently made its attitude evident. Its entry simply reads: "The cooking is unsatisfactory. Chief cook is getting off voluntarily in Texas."

• **Washday Blues**—Another big topic in shipboard meetings is washing machines for unlicensed crewmen. Most

to the policy of keeping most of its assets in commercial checking accounts. It didn't even earn the small return it might have from a savings account. Finally, after much discussion and some misgivings, the officers decided that government bonds might be a safe place for this money. When it finally made the shift, Belfer says, the union considered it an outstanding achievement.

• **Too Safe**—Many unions that operate their members' vacation funds let the money accumulate in banks over the year, instead of putting it into more profitable short-term Treasury notes and highgrade commercial paper. Often they do this because they don't even know such investment possibilities exist.

It seems apparent that even when circumstance is the reason for union conservatism, some good counseling could still raise union income. A common attitude is that once the money is put into government bonds, the fund managers can forget about it, because it's good as gold. Belfer challenges that by pointing to changing conditions in government bond market. He says that even a portfolio full of governments can be made to yield more if it is checked and reshuffled periodically. The announcement last week by the Treasury of a new bond issue paying 3 1/4% interest is already having its effect on the market value of outstanding securities, but unions that aren't getting good advice probably won't know what to do about it.

Belfer feels that the investment community can perform a valuable service for unions by providing them with sound advice even where they prefer to stick with ultraconservative investments.

LABOR BRIEFS

No raise or pay cut is due northern cotton-rayon workers under a two-year contract extension agreed on by Fall River-New Bedford (Mass.) employers and CIO's textile union. Employers dropped a demand for "fringe" cuts of 7¢ to 10¢ an hour, the union its demand for an 8¢ raise. Contract covers 21,000 workers but will influence agreements covering 65,000 in northern mills. The pact runs to Apr. 15, 1955, but reopens on wages in April, 1954.

Injury rate in factories last year (13.5 disabling injuries per million manhours) was the lowest on record, according to the Bureau of Labor Statistics.

Haircuts can be had in an implant barber shop on company time—but at the regular price—by employees of W. H.



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Sinclair Refining Company's new propane deresining unit at the Wellsville refinery, performs the dual role of removing undesirable asphaltic material from high quality Pennsylvania Grade lubricating oil and recovering heavy resins used in the manufacture of wax-coated paper and other everyday items. Fluor engineered and erected this plant on schedule and possesses the experience and ability to build processing units, large or small, anywhere in the world—not only for the refining industry but for natural gas, chemical, petrochemical, power and heavy industries as well. For information on Fluor services and products, write for Catalog FC-8523.

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The Wealthy Unions—and How Much They Have

Union	Affiliation	Membership	Net Worth, Including Reserves (estimated in millions)
Railroad Trainmen	Ind.	216,000	234.0
Mine Workers	Ind.	450,000	42.0
Locomotive Engineers	Ind.	80,000	42.0
Teamsters & Endorsemen	Ind.	101,000	35.3
Automobile Workers	AFL	430,000	28.0
Machinists	AFL	1,200,000	26.0
Electrical Workers	AFL	350,000	21.1
Typographers	AFL	100,000	18.2
Bankers	AFL	46,000	16.0
Textile Workers	CIO	1,500,000	16.0
Mechanics	AFL	400,000	11.0
Bridge & Iron Workers	AFL	131,000	10.0
Shipworkers	CIO	1,300,000	10.4
Street Ry. Employees	AFL	200,000	9.9
Railway Clerks	AFL	300,000	7.4
Clothing Workers	CIO	400,000	7.5
Railway Clerks	AFL	173,000	6.0
Metal Cutters	AFL	252,000	6.0

Where Unions Put Their Money

Bonds and cash are favorite investments, but less conservatism and better advice could boost returns and still keep union reserves liquid.

Labor unions have more money in their coffers than ever before, but most of them don't know how to put it to profitable use. That's the conclusion of an article on union investment policies by Nathan Belfer, economics professor at Pennsylvania State College, in the current issue of the *Industrial and Labor Relations Review*.

• **Potent**—Belfer estimates that total trade union assets now run about \$1.5-billion, including \$500-million in welfare funds under direct union control. This represents considerable growth since 1949, when *BUSINESS WEEK* figured union wealth at about \$1-billion (BW-Nov. 1949, p114). But Belfer points out that even the best available figures are defective, since nobody can do more than guess at assets of locals, district councils, and state and city organizations. Nevertheless, unions have enough money to make them worth considering as potential inves-

tors, especially since most of their money is in cash or government bonds.

From a study of balance sheets of 42 big national unions, Belfer concludes that 72.9% of their assets are in bonds, mostly U.S. governments, and another 10.9% are in cash. The rest of their money is tied up in mortgages, buildings, loans to their locals and to other unions, and some miscellaneous items, with only 1.6% in corporation shares.

• **Playing It Safe**—With more than 80% of their assets in bonds and cash, it is obvious that most unions follow rather conservative investment policies, even wastefully conservative, Belfer believes.

There are a few exceptions to this kind of caution. The AFL carpenters, for instance, are the sole stockholders of Adams Packing Co., a fruit processor. And a number of unions own a share or two in concerns they bargain with,

but these holdings are for the sole purpose of giving the unions copies of their employers' financial statements.

• **Daring**—There is one big exception to unions' conservatism—AFL's National Brotherhood of Operative Potters. The potters have 72% of their \$4.4-million of assets invested in common and preferred stocks. Most of these holdings are relatively safe bank and insurance stocks, with a scattering of shares in manufacturing concerns.

Even so, the potters' policy is daring by comparison with standard union procedure. Last year the potters earned \$243,189.62 on their investments, for a return of 6.02%. That's more than twice the return of unions that stick to U.S. government bonds. Some, such as AFL's machinists and typographers, are bound by their constitutions to governments only. Others have less stringent restrictions. The Brotherhood of Locomotive and Enginemen, one of the richest unions (see chart), permits its finance committee to put funds into any federal, state, local, or Canadian bonds but sharply limits purchases of mortgages and corporate securities.

Many AFL unions permit their financial officers to buy stock in Union Labor Life Insurance Co., a company fostered by the federation to service its unions and their members. A few unions put some of their funds in open-end investment trusts, which in effect gives them common stock holdings. But the bulk of union money is in U.S. governments, largely in Series F and G nonnegotiable savings bonds.

• **Ready Cash**—There are a variety of reasons for the conservative investment policies of most unions. For one thing, a lot of them were hurt badly by unsuccessful ventures into real estate and labor banking in the 1920s. In 1925 there were 36 union-owned banks, and all but four failed.

But beyond that is the simple fact that unions are not, after all, profit-making institutions, and they often need cash in a hurry for such activities as financing strikes. That puts considerable pressure on union-money managers to keep their investments, or a good part of them, very liquid.

• **On Foreign Ground**—Still, Belfer maintains, unions are missing a lot of good bets by not getting good advice, since by and large they are rather naive on money matters. Belfer cites the case of a major union that appointed an old retainer who knew nothing about finance to handle its investments. This man invested a sizable amount of union funds in municipal bonds of dubious value. His reasoning was that the income from the bonds was tax-free. He didn't realize that union revenue is tax-free anyway.

In another instance, a union adhered

the line. It may be significant that Armstrong Junior recently headed Ft. Worth's Human Relations Council whose aim is to eliminate antiminority feelings.

• **Days of NRA**—Armstrong says he isn't certain how he got the NAM's industrial relations job. He first became interested in labor in the NRA and Wagner act days of the 1930s. He had to, being then vice-president of Texas Steel. Because of this budding interest in labor, Armstrong was recommended and appointed as a member of the Eighth Regional War Labor Board during World War II. After the war, because he had the time and showed interest, Armstrong became a director, then regional vice-president of the Texas Manufacturers Assn. He wound up eventually as chairman of TMA's industrial relations committee.

That job snowballed him to an appointment in 1951 as an employer member of the Wage Stabilization Board. Again it was a logical choice: Armstrong had the time, ability, and inclination.

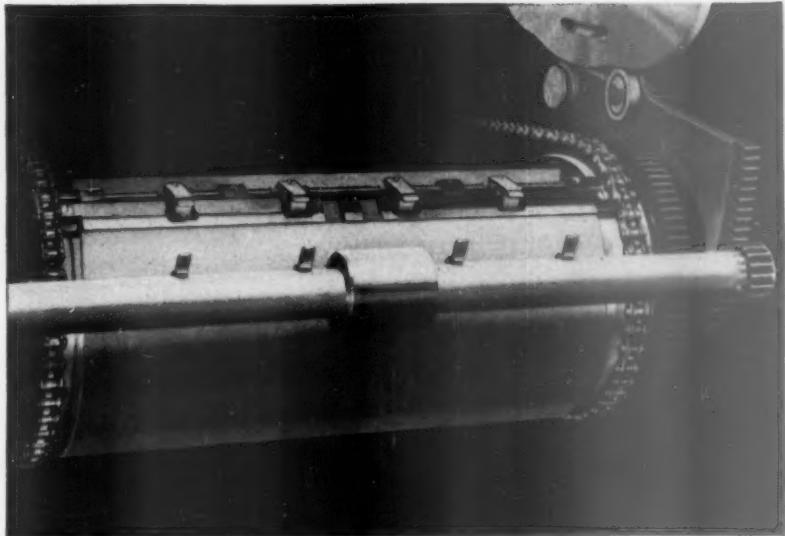
• **Steel Strike**—Armstrong came into the national limelight during the steel strike last year. The strike gave him a first-hand experience with labor-management dealings at the top level, because he was the only industry member of the WSB who was a steel man. He soon became a liaison between the steel industry and the industry members and board.

When the steel strike was settled, Armstrong was very vehement about the board's role. He got some lumps from other members for doing so—but he also got a call to be one of the principal industry member witnesses before the House Labor Committee investigating the wage board.

• **Industrywide**—Armstrong minced no words. He asked Congress to outlaw industrywide bargaining and also to abolish WSB powers in labor disputes. He averred he had no ax to grind. Though he was in the steel business, his company had a contract with an AFL union and was in no way bothered by the strike.

From all indications, Armstrong's testimony impressed Congress. It also impressed the NAM. As a result, Armstrong's selection as chairman of NAM's industrial relations committee was a natural fit. He is also serving as an NAM regional vice-president this year. Some boosters think he will eventually become NAM president.

• **Tranquillity**—The relations between Texas Steel and its union, the International Assn. of Machinists, are good. John T. Rensch, the union's representative at Texas Steel, says they are "excellent." Armstrong says they are "very friendly relations" and places at least half the credit on the union. "It takes



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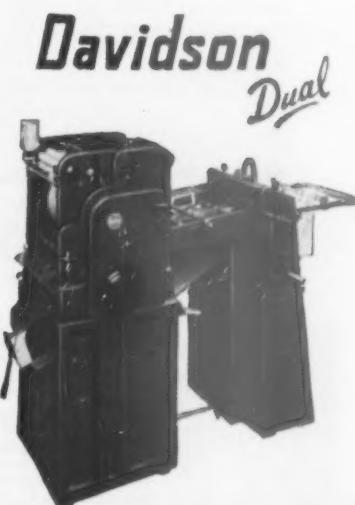
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Indictments were handed down by

grand juries in the last two weeks against two international union presidents—Joseph Ryan, president of AFL's racket-ridden International Longshoremen's Assn., on 30 charges of grand larceny of union funds; and Hugh Bryson, head of the independent, leftist Marine Cooks & Stewards, charged with falsely signing a Taft-Hartley non-Communist oath.



GEORGE W. ARMSTRONG, Jr., of Texas Steel Co. His voice is heard as . . .

Industry Speaks Up

The amendments to the Taft-Hartley Act that are getting the most serious consideration are those proposed not by labor, but by industry. Behind this is an unusually vigorous employer campaign that has focused attention on proposals to make the law more stringent.

Whether this campaign will succeed in achieving a tighter statute or in blocking the labor-favored changes is yet to be determined—by Sen. Robert A. Taft and the White House. But in the meantime, union spokesmen are clearly on the defensive.

One man who has striven mightily to put them there is George Armstrong, Jr., representing the National Assn. of Manufacturers before House and Senate Labor Committees as chairman of NAM's industrial relations committee.

• **Engineer**—The 53-year-old Armstrong is president of Texas Steel Co.; an engineer, chain-smoker, button-down collar man, and an enthusiastic Ft. Worthian. His quiet, low-pressure approach to Congressional committees, before which he continually qualifies his statements and depreciates his own

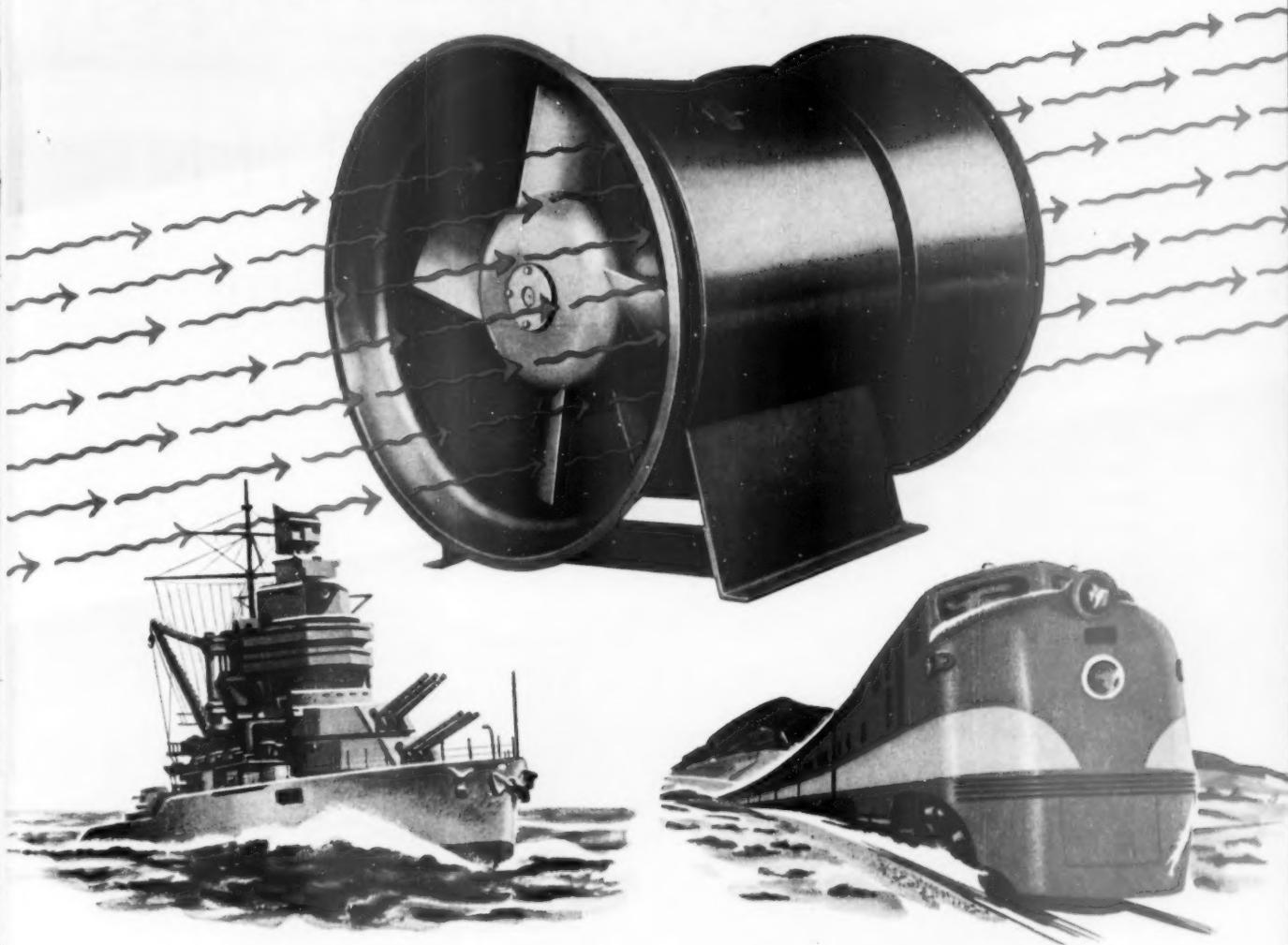
authoritativeness, makes him a contrast to Walter Reuther of the CIO and George Meany of the AFL who are his opposite numbers.

• **Father's Career**—Part of Armstrong's low-pressure approach is attributed to the fact that his father, George W. Armstrong, Sr., now in his late eighties, has brought reams of very unfavorable publicity on himself by being outspoken on a variety of subjects.

Armstrong Senior for years has advocated white supremacy and attacked such minority groups as the Negroes and Jews. In 1949, Armstrong Senior made national headlines when he offered to give several million dollars of his holdings to the Jefferson Military College in Mississippi if it would teach white supremacy and bar Jewish and Negro students. Armstrong Senior in the past has also been a volatile critic of the Federal Reserve Bank.

Exactly what effect his father's strong prejudices have had on Armstrong Junior no one knows. Some people feel that he has swung completely in the opposite direction from his father; others feel that it has made him go completely down the middle of

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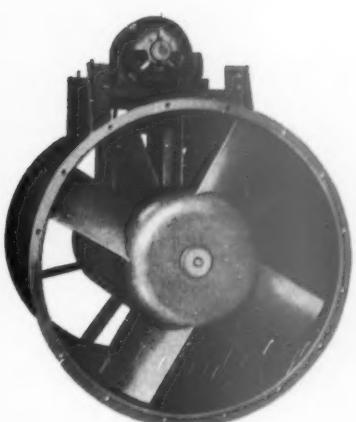
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two to get along," Armstrong points out.

The union considers its contract at Texas Steel one of the best in the Ft. Worth-Dallas area. Armstrong puts it this way: "Wages at Texas Steel are below the maximum in the area but well above the average." Outsiders feel he usually leans over backward to be fair. For example, his plant publication always runs a column of union news. It also runs some union-distributed cartoons that would never see the light of day in a great many company publications.

- **Doesn't Bargain**—Armstrong does not do any negotiating with the union; that's a specific function of one or two others in management. However, he is kept fully informed on all negotiations; he and the board have final say-so on the contract.

Armstrong feels that a company's principal officer should not do any bargaining. "It's an impediment to bargaining because it gives a tone of finality to things." He feels this works for labor as well as management.

- **T-H Views**—Armstrong's objections to the present Taft-Hartley law were based on personal opinions he held long before he was tapped for the NAM job. However, he feels that NAM's position and his personal one dovetail pretty neatly. But there are parts of the NAM revision program about which Armstrong is personally somewhat lukewarm.

Basically, he thinks the important revisions in Taft-Hartley are to prohibit compulsory unionism and industrywide bargaining. He feels that Taft-Hartley wouldn't need much revision now if it had been administered in recent years by a different type of administration.

He feels that Congress will now have to redefine such things as featherbedding, free speech, and state rights to stronger laws. This has come because recent judicial decisions, he feels, have interpreted certain parts of Taft-Hartley contrary to the original intent of Congress.

The Pictures—Cover by Herb Kratovil. Associated Photographers—43, 96; Bill Clinkscales—70, 71, 73; Consolidated Vultee Corporation—48, 49; Wilburn Davis—174; Int. News—28; Syd Karson—130, 169; Herb Kratovil—166; Arthur Leipzig—27; Jay B. Leviton—30, 31; Al McLaughlin—140; Robert Phillips—126, 127; Photography for Industry—148, 149; Trans-Canada Air Lines—77 (bot.); United Press—164, 194; Wide World—77 (top), 101.

PERSONAL BUSINESS

BUSINESS WEEK

APR. 18, 1953



If you haven't already done so, you might consider taking part in a growing American habit—having wine with your meals. More and more executives are finding that wine makes an ordinary meal something special, a good meal outstanding.

Most important point: You don't have to know anything about wine to enjoy it. And you commit no social blunder if you serve the "wrong" wine to your guests—because there is no such thing.

Serve whatever kind of wine you like—imported or domestic—with any course, in any kind of wine glass. Your only gauge should be your own taste, not an imaginary etiquette. Real experts will tell you that wine should be fun, not a ceremony.

Experienced wine drinkers have found that **red wine has an affinity for meat, white wine an affinity for fish and fowl.** But you don't have to follow this rule—Europeans, who grow up on wine, don't themselves. For example: If you prefer white wine with roast beef, drink it. And don't hesitate to serve it to your friends.

Beyond letting your palate dictate what is the "right" wine, you need know only a few basic rules. Here are some of them:

- Chill white wine before serving.
- Serve red wine at room temperature (chilling holds down aroma).
- Always keep wine bottles lying on their sides. This keeps corks wet, prevents leakage and evaporation, and a "corky" flavor.

Get a set of good, all-purpose wine glasses. You can use them for everything—including champagne. Connoisseurs usually prefer a big glass partly full to a small glass filled to the brim. Because the wine can be swished around, it permits better savoring of the bouquet.

Some people feel the ordinary champagne glass is not the best kind to use for this wine. It has such a large surface that the champagne goes flat quickly.

If you know nothing about wine, how can you be sure you're getting what you pay for?

For foreign wines, **your best bet is to rely on the well-known importers**, such as Julius Wile Sons & Co.; Browne Vinters Co., Inc.; and Park & Tilford Distillers Corp. They know the field thoroughly. Generally speaking, you can rely on the brands carrying their names as being the best. In domestic wines, buy those put out by the best-known producers.

Connoisseurs generally agree that the French regions of Burgundy and Bordeaux produce the greatest red wines in the world, Germany the greatest white wines. If you're looking for what the French consider outstanding wine, you're usually safe in picking one from the recent "great" vintage years in France—1945, 1947, 1949.

But don't overlook wines from other areas—Switzerland, Italy, Spain, Portugal, South Africa, South America—and, of course, the U.S. You may find what you want among these.

Don't assume, because you may never have tasted a wine you like, that you don't like wine at all. There are hundreds of wines to choose from,

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PERSONAL BUSINESS (Continued)

BUSINESS WEEK
APR. 18, 1953

ranging from very dry to very sweet. Try different kinds until you find some you like. Then lay in a small supply. You can start a cellar of good imported wine for about \$150.

Also, count on your taste changing—maturing with added experience. Meanwhile, you can follow this rule of thumb to tell whether a certain wine is good: It should have, in more or less equal balance, three attributes—color and clarity, aroma (bouquet), and taste.

Problems you may run across in the construction of a new home can have an effect on your tax picture. Some of them:

• You advance money to a contractor. He starts to build, but disappears with your money before he finishes the house. The partially completed house is worth less than what you paid him.

Tax result: You get a casualty loss deduction. This deduction is the difference between the value of the partially completed house and the amount you advanced. You must take the deduction in the year the contractor disappeared.

• You advance money to a contractor. But he runs out of funds. You have to put up more money to get the house finished.

Tax result: you can get no deduction at the time. It can help you when you sell your house—if you can show that your total outlay was the full cost of the house. In that case you would have a higher cost basis to determine your capital gain.

Some tax authorities think, however, that the Treasury would claim that this was not additional cost, but a loss. And since it is a personal loss, it would not be deductible.

• Part of the construction is defective, and you have to lay out additional funds to correct the defect.

Tax result: You can add the additional outlay to the total cost of your house in establishing a cost basis if you sell it.

If you're trying to redesign storage space in your home—especially your summer home—the University of Illinois can help you out. Its Small Homes Council has made a study of the problem, has issued a 12-page illustrated folder showing how you can get maximum efficiency from proper closet design.

The folder shows 20 space-saving storage units, each designed for the type of article to be stored. You can get it for 10¢ by writing to Mumford House, University of Illinois, Urbana, Ill.

Tests at the Baylor University College of Medicine indicate that a new weapon against high blood pressure may be at hand—without the patient having to go to bed.

The drug is called hexamethonium chloride, was administered orally in the tests. It was given to unselected patients suffering from moderate to severe hypertension. The doctors reported that the drug brought "a significant reduction in blood pressure" in 81% of the patients treated.

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New Push on Air Defense

In practically all the wars the U.S. has fought, at least since the Civil War, military chiefs have relied on just two basic philosophies: You outproduce the enemy in arms and ammunition; and you fight the war in his territory.

The basic scheme has always worked because our industrial capacity at home has never been under attack or even seriously threatened; and because the fortunes of war have always let us go after the enemy in some other place beside American soil.

Even after World War II, when it became apparent that the protection afforded by two oceans was no longer available, the thinking didn't really change.

• **Shrinking World**—Up to 1949, we were the sole possessors of the atom bomb. If Russia were to bomb American soil, we would retaliate with a devastating atomic attack. Even after the Reds came up with their own atomic weapons, the military figured that no great change was necessary—the odds

were just dwindling to a standoff. We could drop 10 times as many bombs as they could.

But now we've reached the point where a reassessment is required.

Russia not only has the ability to fight us on our own territory—it has enough long-range bombers—but can do material damage on the first try. The Russians can drop at least as many as 25 atom bombs on U.S. targets on their first attack.

Such an attack could spell destruction of a major portion of American industry, thus crippling our war potential. That's why official Washington is now taking a second, and somewhat startled, look at what's being done to protect the country against atomic attack—air or otherwise.

• **What Price Safety?**—Our vulnerability is being dramatized also by publicity given a Massachusetts Institute of Technology study for the Air Force, dubbed "Project Lincoln."

This study is only a first approach to

a scientific analysis of our vulnerability to attack and what to do about it. Trouble with the Project Lincoln report is that it doesn't lay out an item-by-item list of what's needed; nor does it give assurance that if it's followed, the U.S. will once again be safe from foreign attack.

But it does lay out something that even the most elemental of Washington bureaucrats can understand—a price tag. To buy an electronic curtain to ring the U.S.—such as Project Lincoln suggests—would cost upward of \$20-billion over and above the \$150-billion in defense funds that are already in the works.

• **Industry's Opinion**—The real problem involved in this program—aside from the cost factor—is engineering manpower, according to L. E. Osborne, executive vice-president of Westinghouse Electric Corp. Industry doesn't have the men it would need, and sees no prospect of getting them soon. In the meantime, it's a new field where much of the development remains to be done, where new ideas come crowding in ceaselessly, where you don't dare freeze designs now because in a war you need the latest and best in equipment.

• **Under Consideration**—Right now a special committee to advise on the defense of North America is considering Project Lincoln and other plans. The committee consists of some top businessmen like Arthur Raymond, vice-president of Douglas Aircraft Co.; M. J. Kelly, president of Bell Telephone Laboratories; Harold S. Vance, chairman of the board of Studebaker Corp.; plus some top engineers, physicists, and educators.

It will be a long time before any such program is bought. Eisenhower and the Pentagon brass have yet to answer some questions like these before Project Lincoln or any other plan is adopted:

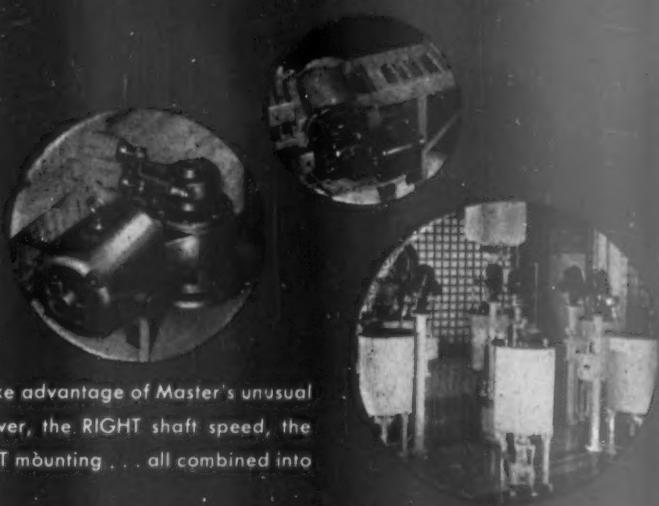
- What kinds of attack do we expect will be launched on us?
- Is there any sure defense against attack?

- What kinds of defense would be the "best defense"?

- Can we afford the "best defense"?
- What plans do you put into effect as a compromise between what's necessary and what we can actually afford?

• **Pertinent Facts**—There is no pat answer to any one or all of these questions. But you can peg down a few facts that bear directly on the problem:

- There is no known combination of defensive measures that can



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"... military men figure that radar is no answer to the problem . . ."

AIR DEFENSE starts on p. 182

insure against enemy hits on American cities or military targets.

• The danger of air attack has been oversold. The potential danger of missiles launched from submarines is as great as, or even greater than, air attack within the next three to five years.

• No matter how much money we spend, we cannot buy complete protection—ever.

I. The Radar Screen

About the time of the Korean outbreak, the Defense Dept. began building a radar net to surround the country. It stretched from Alaska down across our northern borders, and was designed to guard against air attack only. Thus far, about \$5-billion has been spent, but the net is only about half complete, if that.

Part of the trouble has been in construction difficulties; part is due to the priority that airborne electronics take over defensive radar in electronics production. And part of it is due to the fact that a great many military men figure that radar is no answer to the protection problem.

• **Unfeasible**—These latter say it does you little good to build a Maginot Line of radar stations across the U.S. and Canada. For one thing, to be effective, it would require a radar station about every 50 mi. from the tip of the Aleutians to the Bay of Fundy. Even if you could afford such a layout, it would be no answer all by itself.

Radar stations require an interceptor force capable of meeting enemy planes with an equal strength at a point considerably removed from the enemy's target. Pentagon brass say that it would bankrupt the country to buy and maintain interceptors in such strength that you could plug any hole in a 4,000-mi. frontier.

Ground radar is unreliable. It won't bend beyond the horizon, so attacking planes can stay under the beams and not be spotted until you see them by eyesight. It often gives unreliable readings—for example, "flying saucer" blips; and it is frequently rendered useless by storms or cloud formations. Frequently two identical stations will fail to pick up the same target. Result is that a ground station will often lose a moving plane and therefore be unable to direct an interceptor to the target.

For example: An incoming plane



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over Eastport, Me., might be spotted on one set. As it moved south, another station at Bangor, say, would have to pick it up in order to establish a course and speed to direct the interceptor from its base on Cape Cod. A fumble by Bangor or any other station could lose the bomber—with the result that the next sighting would be after it had dropped its bomb on New York.

• **Mobile Net**—That's why a Pentagon proposal to build a mobile radar net is getting more consideration. It would consist of radar-equipped, high-flying patrol planes capable of sustained flight of at least 24 hours to patrol broad expanses of ocean and the Arctic.

An airborne radar station could follow the target, constantly relaying information. In addition, its beam would not be obscured by horizons or ground obstructions. Furthermore, mobile radar could cover far more territory for less money.

One proposal is to outfit 200-odd B-36s as radar pickets. With them, you could have a net covering the northern reaches of the Pacific, Canada, and the United States that would be far more effective and cost far less than a ground network over the same territory.

The Navy adopts this view. It already has a dozen or more radar-equipped Constellations for just such duty.

II. Sea Protection

The mobile radar screen meshes with efforts to thwart attack from the sea. The Soviet's fleet of snorkel-equipped submarines is probably nearer to battle-worthiness than is its bomber command.

Truth is, right now the Russians have no long-range bombers that cannot be shot down by World War II types of fighters if detected in time. Their sole long-range bomber is the TU-4—a copy of our B-29. Any one of our first- or second-line fighters is capable of overtaking and shooting down this plane with just conventional armament.

So some top Navy people reason that if the Russians were to start a war within the next couple of years, it would be unlikely at the outset that they would send a fleet of such planes into certain destruction.

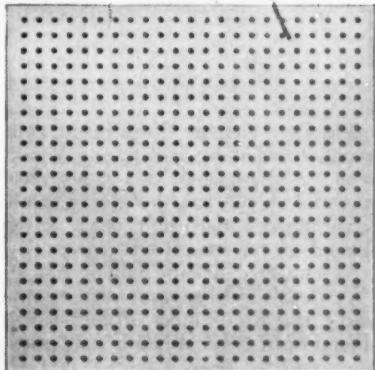
• **Russian Might**—But the Russians do have a fleet of some 350 submarines, and about half are long-range craft. In addition, it's believed that the Soviets have free and guided missiles with a potential range of 100 to 200 mi. This combination could conceivably bring some of our heaviest industries under attack.

There is only one sure method of protection against this attack—hit the

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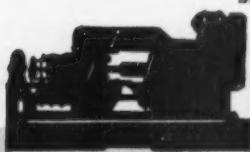
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submarines in their home pens. Barring this, you've got to stop them before they launch their missiles. True, it's a needle-in-a-haystack proposition, but the best method now known of seeking out submarines is the antisub carrier force. And today, Navy men say, without more ships we just couldn't ward off an attack.

Air experts, on the other hand, say that a submarine attack is really not too dangerous. They claim that missile guidance systems prevent long-range firings; that a submarine is an unstable platform from which to launch a missile; that the Russians lack long-range missiles.

• **Navy Answer**—Navy men disagree. They point to their own long-range missile, the Regulus (BW—Apr. 4 '53, p32), which can be launched from a sub. They claim that they could hit industrial concentrations on the Delaware River from the Jersey Capes. The degree of accuracy wouldn't be good, but with an atomic warhead the odds on hitting something worthwhile are better than good. In most of the major target areas, industrial concentration is so heavy that it matters little which factory would be wiped out.

That's one reason why the cry is again being taken up for industrial dispersal.

III. Dispersal of Industry

Up to now, government pressure to disperse has not been great. Bureaucrats who approved fast amortization tried to get industry to scatter, and greater percentages of tax writeoffs have been given in some cases to relocated industrial plants. But by and large government planners have gone along with sites selected by industry for economic reasons.

Now the situation is changing. The government plans to get tough. And one weapon to be used is to give fast amortization only if you build your plant in a rural area.

The Office of Defense Mobilization is coming up with a midsummer report that will spell out what more is needed in arms capacity.

This ODM study will review existing production capacity and lay out how much more steel, copper, aluminum, plus machine tools and standby plants will be needed to carry out overall war plans. The Treasury Dept. and ODM will bear down hard on granting new fast writeoffs for these extra facilities. The defense manufacturer will have to prove that he is complying with federal policy on dispersal to get fast amortization.

• **Jet-Propelled**—The Administration also has under consideration a plan that might even speed up amortization for particularly desirable production. For

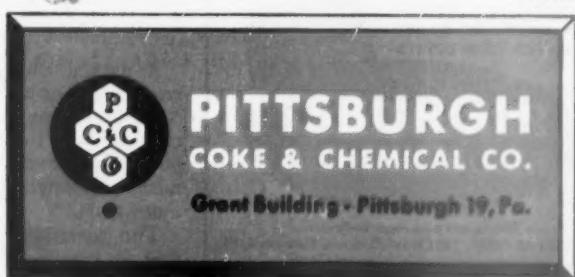
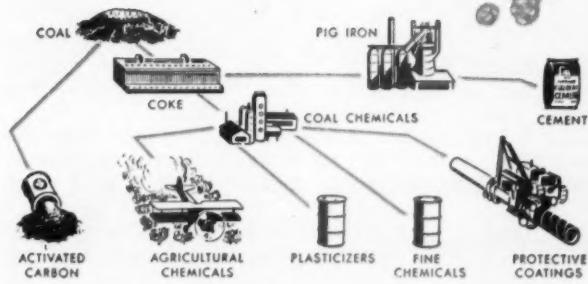


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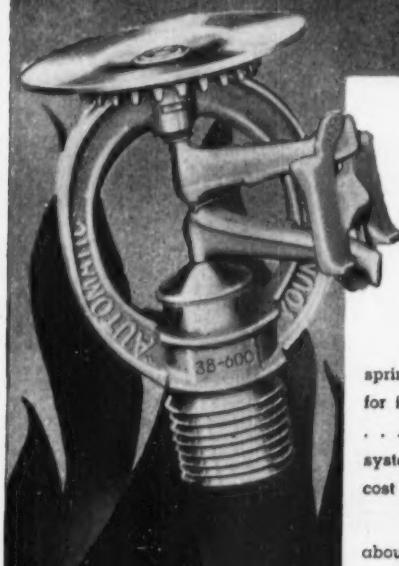
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" . . . we'll be flooded by congressmen investigating why nothing was done . . . "

AIR DEFENSE starts on p. 182

example: If you were to build a self-sustaining jet engine plant, say in the Texas Panhandle, you might be able to get a jet-propelled writeoff from the government—the reason being that ODM and the Pentagon would like to have some factories that could keep right on operating in case main plants in heavily concentrated cities were bombed out.

IV. Ground Observers

The key to our atomic defense thus far is radar. It's the only device we have that can give us some early warning. But the radar limitations leave a lot to be desired. Until someone comes up with a method of making radar beams that bend around corners you will still have to rely on human eyesight.

That's why England—which has the best early-warning radar defense of any country—still maintains a large corps of ground observers. That's also why the Air Force set up Operation Skywatch last year covering 27 northern and coastal states.

But Skywatch called for 200,000 volunteers and got only 18,000. Subsequent calls have brought in only a trickle of volunteers.

The same is true of the Federal Civil Defense Administration. In each of the major cities throughout the country, FCDA needs about 200,000 volunteer workers for emergency police, fire wardens, first aid, communications, and other functions. Thus far, most local defense officials feel lucky if calls have turned up as much as 10% of what has been needed.

• **No Panic**—The recent Yucca Flats explosions helped out only a little. The TV showing of the bomb explosion got some volunteers, but mainly it comforted people into thinking that for about \$250 they could build their own basement lean-to bomb shelters and be safe.

The Civil Defense Corps runs a poor second to what we had during World War II. One reason is a controversy over who should pay the costs. Result is an impasse that isn't likely to be cleaned up for some time yet.

As one civil defense official put it, "We won't get any money or anywhere near the number of needed volunteers until the first bomb is dropped. Then we'll be flooded with volunteers and congressmen investigating why nothing was done."



Close-up of the moon taken through the famous Hale telescope at Palomar Mountain, Calif. Sharp detail shows 150-mile wide crater known as Clavius (center). The glass for this 200-inch mirror was supplied by Corning.

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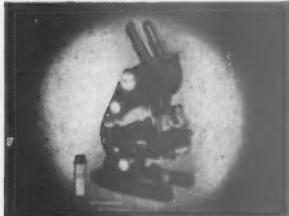


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Brake on Tax Write-Off

Five-year amortization will lose its charm, especially for gas pipelines, if FPC insists on reducing rates on the basis of the short-term tax prospects.

Natural gas pipelines and electric companies are wondering if it was worth all the trouble getting certificates of necessity allowing a five-year tax write-off on defense projects.

What's worrying them is that the Federal Power Commission can gear rates to actual tax paid, and thus nullify much of the advantage of the fast write-offs.

If FPC does just that, the pipelines will be hit hardest; the commission has a much larger say over their rates than over those of the electric companies'. Most pipelines are interstate carriers selling for resale. This puts their rates under federal regulation. Electric utilities have smaller interstate sales and much of this is at retail. So they are subject mainly to state regulation.

• **Expansion**—Both the gas and electric utilities have drawn heavily on the fast tax write-off certificates authorized in the Revenue Act of 1950 as a means of expanding capacity. Pipelines under FPC jurisdiction early this year held certificates on projects totaling \$386-million, of which \$97-million was subject to the five-year amortization provision. Electric companies had certificates on projects costing \$2.5-billion, of which \$1.2-billion was subject to fast write-off.

The idea of the utilities is to use the big initial tax savings to help finance a new facility, and then to pay the later, higher taxes from regular revenue. The utilities have no idea of using the fast write-off for rate-making purposes. They want to charge only normal depreciation as a cost.

Utility commissions in 13 states have allowed electric utilities to continue normal amortization tax deductions, and to use the tax deferrals in financing construction. But FPC hasn't made up its mind yet. That is what worries the utilities.

• **Staff Plea**—The rate and legal staffs of FPC are pushing hard to have the fast write-off benefits passed directly to the ratepayer. It would work like this:

A natural gas firm is allowed five-year tax amortization on part of the costs of a new pipeline. That is, it can write off these costs, for tax purposes, over five years instead of the normal amortization period of 20 or more years.

The advantage to the company is that it pays considerably lower taxes

on the new pipeline for five years. In each of these years it can take a tax credit for one-fifth of the costs covered by fast amortization. After the fifth year the company gets no tax credit at all for amortizing the actual costs of the pipeline.

Some FPC staffers are demanding that such a utility lower its rates to consumers to reflect the lower tax payments during the five years of fast amortization.

• **Deferral**—Pipelines want FPC to write a rate-making rule that will allow them to retain the five-year tax benefit for financing new facilities. They point out that the benefit is not a savings, but rather a deferral. At the end of five years, they point out, their taxes will be increased proportionately. Rate reductions now, they argue, would only mean rate increases later.

Electric companies don't particularly need a rule covering amortization. A policy statement would do just as well. Since their rates are less subject to FPC jurisdiction, they believe the commission can handle rate-making involving the fast write-offs on a case-by-case basis.

• **If Taxes Drop**—Public power groups and consumer organizations side with the FPC staff. They point out that possible lower income taxes in the future could mean a net gain to a utility using fast write-off. The utilities retort that any such reduction would certainly be reflected in rates.

The public power groups, which pay no federal income tax on their power operations, also argue that the fast write-off benefit is, in effect, an interest-free government investment in private utilities. They think the ratepayers should get their benefits now.

This give-and-take was brought out in the open at an FPC hearing last month. The commission is now trying to make up its mind; it may choose the easy way, and decide each case as it comes up.

This certainly wouldn't suit the pipelines. They need to know what FPC thinks in order to key their financing to it. They also want to know whether it is to their advantage to exercise fast amortization privileges.

A utility can get out from under the fast tax write-off program anytime it chooses, but once out, it can't come back.

• **One Man's Stand**—So far the only Federal Power Commissioner to tip

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clues: TO THE SOLUTION OF MANAGEMENT MEN'S PROBLEMS.

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vacant, selling—business opportunities of all types, special services and offerings and equipment offered and wanted.

Clues Section, BUSINESS WEEK
New York 36, N. Y.

his hand has been the chairman, Thomas C. Buchanan, who appears to side with the rate reduction advocates. When a pipeline attorney tried to introduce a letter from Office of Defense Mobilization, which had issued the certificates to utilities, Buchanan ruled the letter out of order. He said the letter was a confidential communication between government agencies, and not meant for the public record.

The letter, from Ralph S. Trigg, Acting Assistant Director for Production of ODM, said in part:

"From the viewpoint of the government as a unit, it is always unfortunate when citizens who take action in reliance upon inducements extended by one arm of the government in accordance with law are deprived of the benefits by another arm. . . . I would hope that the commission in treating the utilities subject to its regulation could specify accounting practices and adopt policies appropriate to its responsibilities which also would give due effect to the purpose and aims of the tax amortization device as a defense mobilization tool."

This was just what the utilities were begging for. They hoped FPC would listen to a sister agency.



Ahead of the Times

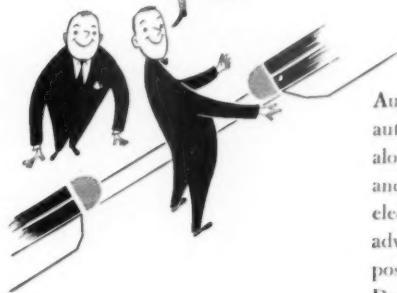
This functional-looking diver's suit being examined by a visitor in the Museum of Science and Technique, Milan, Italy, was designed not for the man of the future but for the man of the past. Constructed from a drawing by Leonardo da Vinci (BW-Apr. 12 '52, p82), the suit is made of leather, has breathing valves, and can be fitted with special gloves and foot fins. This particular model was intended for heavy-duty diving. But da Vinci also designed lighter diving equipment that soldiers could use in emergencies.



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From Pause to Recession to Slump?

The prospect of peace in Korea has created a measure of uncertainty about the future trend of the economy. Actual reflection of uncertainty has been confined to the stock market, but experts—here and abroad—are scrutinizing the boom for signs of a reversal.

One expert voice, the *London Economist*, recently published a special survey titled, *If America Slumps*. The *Economist* categorically denies that it is engaging in crystal ball prophecies. But it thinks that the possibility of a downturn is real. Acknowledging that the United States is the dominant force in the free world, it urges Britain to prepare for the worst, for an American dip would mean depression abroad.

Starting off from the premise that the American production machine is geared to a normal increase of \$10-billion to \$12-billion a year, the survey states that this increase depends on continuing expenditures by government, business and consumers. If there is a fall in total demand by these groups, it will mean a reversal that can take the form of a pause, a recession or a slump. The *Economist* carefully defines its terms:

- A pause occurs when total expenditures do not absorb more than a fraction of the normal growth.
- A recession is when expenditures fall by \$10-billion to \$20-billion below their previous level, as in 1938.
- A slump, like the 1929-32 type, is when all forms of expenditure show a sharp cutback.

A new pause or recession, the survey claims, could begin with the leveling off of defense expenditures. The *Economist* considers that an administration bent on economy will also pare other spending, and it puts little stock in the notion that private expenditures can take up all the slack. Even when taxes are cut, the analysis suggests that a large part of what taxpayers gain will be saved rather than spent.

As the survey puts it, capital goods spending has been at record levels for the last three years, so that some let-down is due. It goes on to warn that residential construction is also destined for a drop, because it, too, has been at a high level and also because of the decline in family formation (from a peak of 1.6-million a year in 1947-48 to 700,000 by 1954-55).

Turning to consumer spending, the *Economist* notes that nondurable goods have had an extraordinarily steady growth compared to durables, which have been unstable. It states that the demand for durables will have to continue on the upswing, but here again, the survey is doubtful.

On one hand, it declares that many appliances have already saturated the market. On the other, it observes that, though there is a high potential for replacement about every three years, the relative drop during 1951-2 may mean another drop in 1954-5. This, of course, would be just when the economy needs stimulation.

On the basis of its own survey, the *Economist* states

that we can go from a pause to a recession to a slump with the lightning speed of a triple play.

In this connection, the *Economist* emphasizes the menace of the multiplier effects in our dynamic economy. The chain reaction that set off the current boom, it states, could also work the other way. It points out that a "frightening proportion of American consumer expenditure today" may be postponed. This is not only for durable goods but for nondurables as well. If consumers decide to put off buying, or if jobs are insecure, it could mean a 25% drop in expenditures, which would cause nothing less than a \$50-billion slump.

It is obvious that this sophisticated survey is deliberately pessimistic and fails to take into account many countervailing measures. But we welcome it in spite of that. For it is valuable to gain an outsider's opinion of our economy, especially from a friendly source. We have long held that some deep thinking on our economic future is essential. If nothing else, the *Economist*'s gloomy view should start us thinking while we are still riding the boom instead of waiting for the pause that can bring a recession.

Winning Combination

We congratulate Mrs. Oveta Culp Hobby on her new post as Secretary of Health, Education and Welfare. In raising the Federal Security Agency to Cabinet level, the Eisenhower Administration shows that it values proper welfare functions no less than its predecessors.

Mrs. Hobby faces a formidable task in streamlining the grab bag of autonomous agencies under her control. But she is a person of proven ability and is bestowed with an abundance of charm. Such a combination cannot fail to succeed.

Shortage of Scientists

The Soviet Union will graduate 50,000 scientists and engineers in 1955, compared to 17,000 in the United States. These figures were released by the National Science Foundation in requesting a \$15-million appropriation from Congress. Since 1950, the Foundation added, research and development effort in the U.S. has expanded rapidly, but the number of graduates in 1955 will be only 38% above the level of five years back.

This snailpace increase looms as a critical problem. But equally disturbing is the fact that government, not business, is taking the lead in overcoming the shortage. Corporations scouring the campuses will have only themselves to blame if they fail to find an adequate supply of qualified graduates. It is in their own interest to help both colleges and students instead of depending on the government to do it for them.

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Come harvest time, have you ever wondered why your garden didn't live up to the seed catalog pictures you saw in the spring?

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Balance your soil this spring with *both* Krilium and fertilizer. Ask your dealer about Folium,* the new Monsanto water-soluble fertilizer — companion to Krilium. Both Krilium and Folium are available in a variety of package sizes for large or small gardens.

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